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THESIS

BUSINESS PROCESS REENGINEERING OF THE DEPARTMENT OF DEFENSE TRAVEL SYSTEM

by

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    The analysis of the reengineering efforts is completed with a comprehensive look at lessons learned. The research concluded that reengineering projects need senior management participants, full time cross-functional teams, and an environment for change.

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BUSINESS PROCESS REENGINEERING OF THE DEPARTMENT OF DEFENSE TRAVEL SYSTEM

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A. BUSINESS PROCESS REENGINEERING

1. Overview

Business Process Reengineering (BPR) is a term coined by Michael Hammer (1990) to describe a philosophy of how a business should change. BPR involves a "clean sheet" approach to changing the way people do business. It focuses on "why" people do things before questioning "how" they are done. Hammer and James Champy (1993) define BPR as:

> The fundamental rethinking and radical redesign of business processes to achieve dramatic improvements in critical, contemporary measures of performance, such as cost, quality, service, and speed.

There are several characteristics that Hammer and Champy feel are common among successfully reengineered projects. They include empowering the workers, reducing the number of controls, combining jobs, minimizing the reconciliation process, and making the workflow more logical and natural. Each of these different steps places more responsibility and authority on the individual workers. Combining these characteristics allows an organization to move towards a more productive and profitable work environment.

2. When to use BPR

BPR is not practical for every organizational process. There are several guidelines that need to be analyzed before beginning to reengineer a process. Before the organization can choose a process to reengineer, they must identify the different processes in the organization.

After defining the processes, the organization must decide which processes are in the worst shape. The next step is to determine which process affects customers the most. The final step is to determine which processes are most likely to accept change. (Hammer and Champy, 1993)

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These steps are general guidelines to use after determining that reengineering is appropriate. The decision to reengineer will probably rest with senior level management. Some reasons to reengineer include survival in a changing market place, halting a decline in productivity or sales, or maintaining a competitive edge.

3. When does BPR Fail to Produce

BPR is one of many tools that an organization can use to produce change. However, as with any tool if is not used correctly it will not work as advertised. Some of the problems that could hurt the BPR process include not having senior level support, trying to automate current processes before reengineering, letting technology limit the scope of the change effort, or pretending to have a clean slate instead of realizing the limits of existing information technology (IT) infrastructure.

BPR stresses the use of teams throughout the process. However, the organization must be truly committed to change and the reengineering teams must have senior level management involved with the reengineering process. Without senior level support, the team will be able to design a new system but will be fighting an uphill battle toward implementation.

A second area that causes BPR to fail is trying to automate a process without first reengineering it. Simply automating is only a quick fix to a larger problem. Eliminating the root causes of the problems within a process is necessary to recognize dramatic improvement or radical redesign.

Reengineering teams fail to produce radical improvements when they allow technology to be a limiting factor. When redesigning a process the team should focus on what is really needed. Once the process has been redesigned, available IT should be used to facilitate the implementation of the new process.

On the other end of the IT pendulum, is the concern of not including existing IT infrastructure in the process redesign. While it is easy to wish away a legacy system in order to envision a "clean sheet," it is unlikely that an organization can ignore the existing infrastructure and implement a process from scratch. It is more realistic to

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acknowledge the resources available and any real constraints and develop a fundamental understanding of their implications on the process redesign (Davenport, 1993).

4. Conclusion

Business Process Reengineering is a tool that can produce drastic changes within an organization. This process is a management tool and can not be considered the only solution to a problem. Overall BPR will succeed if the top-level of the organization wants to change, can identify their processes, and provides the resources and support needed.

B. BACKGROUND

The Director of the Defense Performance review, General McInerney, stated the Department of Defense (DoD) spent more money ($2.3 billion) overseeing and administering the travel system in 1993 than was spent on travel ($2 billion) (Cohen, 1994). This was clearly an unsuitable allocation of resources that screamed for corrective action. Those screams did not go unheard. The Defense Performance Review (DPR) as part of the National Performance Review (NPR) led by Vice President Al Gore (Gore, 1993), identified the travel system as a reinvention candidate in September of 1993.

Initiatives to reinvent the travel system have surfaced at every level of DoD. Some specific examples range from the DoD-wide Defense Travel Pay System (DTPS) proposed by the Defense Finance and Accounting Service (DFAS) (DFAS, 1994), to service-level proposals like the Financial Accounting System for Travel (FASTravel) proposed by the United States Air Force (Berk, 1994), to agency initiatives like the proposals of the National Security Agency (Mahan, 1994) and the Naval Command, Control and Ocean Surveillance Center in San Diego, California (Porter, 1994).

DoD officially became part of the reinvention effort by forming a task force to reengineer the current travel system. The charter of the task force was to design a temporary duty travel system that meets operational mission requirements, improves customer service, reduces overall cost to the government and is equitable to all DoD

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organizations [Cooke et al., undated). Concurrent with the formation of the task force, the Ranking Minority Member of the Governmental Affairs Subcommittee on Oversight of Government Management, Senator William Cohen, requested that the General Accounting Office (GAO) conduct a review of the current travel system (Cohen, 1994).

Although the focus of these travel initiatives was to reduce the overall cost to the government, other problems exist that provide a strong justification to reinvent the travel system. These problems include excessive outstanding travel advances, unmatched vouchers, and poor customer service. Each problem is serious and needs dramatic--not merely incremental improvement.

Realizing the problem is a good first step. However, DoD must realize that there are numerous obstacles to effecting an organizational change of this magnitude. In order for DoD to be successful in reinventing travel, they will have to make meaningful changes both technically and culturally. The vehicle that DoD has chosen to effect these changes is business process reengineering.

C. SUMMARY

This chapter provided an overview of BPR--when to use it, the benefits, and the limitations of BPR. Addtionally, the chapter provided a background of the initiatives to reengineer the travel delivery system in DoD. The next chapter will provide more detail of the major travel initiatives at the federal government level.

II. TRAVEL REINVENTION EFFORTS

The need to reinvent the travel system has drawn high-level attention. Several government agencies initiated investigations, studies, or reengineering teams to analyze both the capability to change and the benefits of changing the current system. This chapter will review the efforts of four organizations: the Air Force District of Washington (AFDW), the National Security Agency (NSA), the DoD Task Force to Reengineer Travel, and the Government Accounting Office (GAO).

A. AIR FORCE DISTRICT OF WASHINGTON'S FEDERAL AUTOMATED SYSTEM FOR TRAVEL (FASTRAVEL)

FASTravel is a concept to reinvent travel in DoD proposed by AFDW (Berk, 1994). The idea is to employ a fully automated and paperless system for processing travel orders and vouchers. The system would be totally electronic including the creation, transfer, approval, computation, accounting, disbursing, and retention aspects of the travel system.

Specific details of FASTravel include a one-level review and approval feature using electronic signatures and electronic funds transfer (EFT). Random post payment audits of an appropriate statistical sample of travel vouchers ensures internal control of the travel system in lieu of prior approval by multi-level review. All receipts required to be maintained by travel entitlements or regulations would be retained by the traveler.

FASTravel includes an on-line transportation and lodging reservation system to reduce "hand-off" time of travel documents. The use of a government-sponsored charge card for all costs, including cash advances eliminates outstanding advances and increases the charge card rebate to the government. Integrating the system from travel request to voucher computation and payment eliminates the outstanding voucher reconciliation process associated with travel.

FASTravel would allow direct disbursements to the charge card contractor. This feature would reduce the amount on the traveler's charge card statement. The traveler would receive a statement displaying all charges incurred and payments received through

EFT would appear as credits. This would dramatically reduce the rate of charge card delinquency and would result in increased contractor rebates to the government.

A detailed description of the FASTravel Concept of Operations is included as Appendix A. An IDEF0 model of the FASTravel concept of operations is included as Appendix B.

B. NATIONAL SECURITY AGENCY TRAVEL SYSTEM

1. Background

In April 1994, NSA selected a Travel Reengineering Team (TRT) to redesign Temporary Duty (TDY) travel (NSA, 1994). The goal was to provide excellent service at the lowest cost by streamlining, simplifying and redesigning all the processes associated with travel (i.e., planning, initiation, execution, reconciliation, and policy).

The TRT used the tools, techniques and methods identified in Business Process Reengineering (BPR). NSA established a Senior Steering Committee as the guiding body for the reengineerinq project. The committee provided a link between the TRT and senior management. The steering committee acted as the champion of the approved Implementation Plan and in areas concerning changes in policies, procedures, and information technology.

NSA conducted an in-depth review and analysis of the current travel process. The TRT gathered data including statistical information, costs involved in the administration of the program, and detailed flowcharting of the process. From these flowcharts, costing data and both cycle and process times were calculated.

2. Problems and Requirements

The TRT found a number of problems relating to processes, technology, and organizational structure. A summary of some of the problems and corresponding requirements for improvements quoted from the TRT Executive Summary (NSA, 1994) follows:

Process Problems
- process was very time consuming (cycle/process time)
- process was very expensive

- process did not meet customer's/management's needs or expectations
- process did not utilize "best practices"
- process involved significant amount of traveler's time
- customer confusion regarding who to contact when questions arose
- existing rules/regulations were not customer service oriented, cost effective, or easily interpreted by the customer
- inconsistency in the way processes were performed across organizations
- manual, time consuming, and repetitive processes

Process Requirements
- eliminate processes that are redundant and/or repetitive
- streamline the travel process to eliminate time consuming manual processes
- simplify rules and regulations to make them more easily understood, more cost effective and more customer oriented
- standardize processes and responsibilities across Key Components

Technology Problems
- all travel data not maintained in one central database
- separate databases maintained by Key Components
- lack of real time on-line budget information for key components
- MIS information not being captured by current database
- lack of tracking or status capability by travelers/management

Technology Requirements
- **Planning**
    - travel information available on-line at travelers desk
    - electronic submission of request for reservations to CTO

- **Initiation**
    - electronic request for travel approval
    - approvals done on-line
    - real-time budget information and drawdown
    - policy built into system
    - exceptions to policy flagged to management
    - automatic notification to management where required (supervisor, sensitive travel, security, medical)
    - MIS reports generated from database
    - personal information remains in database, eliminating need for repetitive input of information
    - history file
    - tracking and status capability available

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◆ Reconciliation
- electronic input/submission of expense report
- exceptions to policy not previously approved are flagged to management
- payment made via EFT in 24-48 hours
- AMEX bill on-line
- EFT payment direct to AMEX if desired
- MIS reports
- tracking and status capability available

Organizational Problems
- ◆ travel process maintained within different organizations
- ◆ personnel working on travel process do not fully understand the impacts of their actions on the customer, other organizations within the process
- ◆ personnel lack the tools, technology and information required to work efficiently
- ◆ goals and objectives of organizations often conflict
- ◆ personnel do not receive comprehensive and consistent training on processes

Organizational Requirements
- ◆ identify an executive level process owner to assume start-to-finish responsibility for the travel process
- ◆ identify and implement consistent and coordinated organization and job level goals for all areas in involved with the travel process
- ◆ equip personnel with skills and tools (training and technology) needed to perform responsibilities efficiently
- ◆ formally define cross-functional relationships for organizations responsible for implementing various aspects of the travel process
- ◆ position the travel function in an organization that will allow maximum contribution to the Agency

3. New Travel Process

NSA's new travel process is designed to meet or exceed each goal that was established in the charter. The goal to radically redesign the business processes that provide an effective TDY process from both a cost and customer service viewpoint was met by defining an organizational structure within NSA, recommending changes to current regulations, and totally redesigning the end-to-end process. Highlights of the new travel process include (NSA, 1994):

- ◆ AMEX card issued to all employees

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- advances on AMEX card only
- flat rate per-diem
- commercial travel office outsourced
- fully automated system
- travel budget linked to approver
- management responsible for:
    authorizing travel
    authorizing expenses
    policing usage
- reimbursements in 24-48 hours via EFT
- AMEX bill paid electronically by NSA for travel related charges

The following is a summary of the new travel process:

Request For Travel Approval (RTA): Significant elements involved in this step include outsourcing with a Commercial Travel Office (CTO); flight availability/hotel/rent-a-car (RAC) available on-line; RTA created on-line with automatic reimbursable costs estimated up-front; CTO will book all requests outside of policy, management will receive flagged exceptions for approval; all major expenses charged to individual AMEX (i.e., air, RAC, hotel).

Management approval/review: This step requires a single level of approval; management receives policy exceptions for review with the authority to approve; travel budget information (real-time) is available with automatic obligation of funds when trip approved; notification of approval automatically E-mailed to traveler and CTO.

Travel: This step includes the means for travelers to obtain a cash advance through the charge card at Automatic Teller Machines (ATMs).

Traveler fills out expense report (ER): Traveler accesses the pre-approved trip file on-line, an expense report is automatically generated, and traveler's AMEX bill is brought up on-line. The traveler inputs any additional reimbursable expenses and any changes to pre-approved costs. The system performs computation of total entitlement and the employee can choose the form of payment (EFT and/or payment to AMEX). Exceptions to policy not previously approved and expenses over the original total estimated dollar amount are flagged to management for approval. An E-mail

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notification will be sent to the employee of all non-approved expenses. Employee maintains required receipts for three years.

Disbursing Payment: Payments will be made via EFT within 24-48 hours; AMEX payments may be made weekly by NSA to your individual bill; automatic adjustment to the organization's travel funds will occur; there will be random post audits of expense reports.

General: Policy and travel information, in addition to status checks of each process, will be available on-line. The CTO will provide service 24 hours, 7 days a week, and have an 800 number. The entire system is automated, with management responsible for policy compliance, authorizing travel, and expenses. The CTO must be used; CTO will offer lowest available airfares when appropriate. Policy is flexible (10-15 guidelines); business class travel for trips in excess of 14 hours (travel time) may be authorized; flat rate per diem; actual expense allowance (AEA) will be approved by travelers' management; and employees may use the government-issued charge card for personal incidental expenses while on TDY. Fraudulent claimants will be disciplined and/or prosecuted.

Benefits: The benefits of the new travel process are:
- gains buy-in to new system
- closely mimics new travel process in manual form
- allows employees to test segments of the new travel process
- reduces workload
- eliminates excessive paperwork/forms
- reduces/eliminates ticket reconciliation
- allows personnel to actively assist in transition
- leads to traveler satisfaction due to quick receipt of reimbursement
- provides traveler with automatic deposit of reimbursement [NSA, 1994]

C. DOD TASK FORCE TO REENGINEER TRAVEL

Concerned about excessive costs and poor customer service, senior officials in the DoD established a DoD Task Force to Reengineer Travel. The Task Force was charged to "develop a fair equitable temporary duty travel system for all DoD organizations" (Cooke et al., 1995) that will:

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- meet operational mission requirements,
- improve service to the customers of the system,
- reduce overall cost to the Government. (Alderman et al., 1995)

1. Findings

The DoD Task Force aspired to look behind the symptoms of the problem; a system that is expensive, not customer-oriented, and not mission-oriented. The Task Force found three principal causes for the current status:

- Current travel policies and programs focus on compliance with rigid rules rather than on performance of the mission. Checks and safeguards against abuse of travel funds are added on, rather than built in, to processes and are disproportionate to the exposure to abuse. Indeed, current mechanisms are unlikely to uncover the major sources of abuse (such as unnecessary trips). The compliance mindset appears based in a view of travel as a perquisite, rather than as essential to carrying out the Department's. mission.
- Current Department travel practices are outmoded. Private sector business practices for travel have evolved significantly in the last two decades, but those developments are not reflected in the Department's practices.
- The current travel system is not integrated. Responsibilities for travel at all levels of the Department are fragmented and "stovepiped" within separate functional communities. Severely "stovepiped" administrative processes drive up cost, impede mission accomplishment, and burden customers. System integration is performed by the traveler who carries paperwork from one function to the next. (DoD, 1995)

To effectively correct the problems with travel, the Task Force found that the DoD must approach travel fundamentally different than it has in the past. The Department must:

- Change the philosophy of travel: Manage travel as *mission support,* not as an end in itself. Treat the traveler and commander as *responsible professionals* and as *honest customers* of the travel system, not as presumed incompetents or criminals, and treat the commander as a *responsible manager.*
- Adapt and standardize best business practice from Government and the private sector. We identified a number of such practices, found that their efficacy is widely accepted, and concluded that they can be readily applied to the Department's operations. We should provide incentives for individuals and organizations to adopt those practices, rather then dictating mindless compliance. As part of this process of

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modernization, we should build accountability into the system, rather adding it on after the fact, as we do today.

- Change the system. The central task is to redesign and reengineer the *travel delivery system, so* that it meets the needs of the mission, the traveler, the commander, and the taxpayer. In designing that system, we should embed both the new philosophy and the best business practices. Ultimately, a system can use technology as an enabler for simplification and better control, but progress need not await automation: the system should be reengineered first, then automated. As we reengineer the system, we should also rationalize, simplify, and articulate *policies* consistent with an overall systems view. To do so will require a degree of *coordination* unprecedented in the Department. (DoD, 1995)

2. Recommendations

The Task Force's recommendations for improving the travel process in DoD included laying the groundwork for system reform, creating blocks for an improved system, and assembling the building blocks into a system. This section will review the steps recommended by the Task Force.

a. *Lay the Groundwork for System Reform*

- *Simplify and articulate entitlements.* Replace the complex regulations with those that are based on simple rules and standard arrangements that focus on mission support (and determine what a trip "should cost" the Government). The rules should be determined by the nature of the travel (business, training, or operational) rather than the status of the traveler. The commander responsible for the mission, for the budget, and for the traveler is in the best position to determine when exceptions are appropriate. Therefore the authorizing official should have the discretion to waive those rules or arrangements when the authorizer determines such a waiver to be in the interest of the Government.

- *Provide the travel authorizer and the traveler an accurate estimate of what the proposed trip "should cost." Use single-source data entry starting with the authority to travel as the basis for reimbursement, and automate the process.* Supervisor approval of the trip would constitute

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approval of the "should cost" estimate. That estimate should be provided to the traveler, so that they may plan expenditures accordingly.

♦ *Simplify accounting.* Travel accounting must be simplified and made more accurate by funding all or as much travel as possible at the organizational level and using one element of expense.

b. **Create Building Blocks**

A DoD Task Force survey of Government and private sector travel processes identified several "best in class" practices to carry out the five basic functions of travel (authorization, arrangement, payment, execution, and reconciliation). The Task Force recommended adoption of the following basic building blocks of a reengineered travel system:

♦ **Authority**
- *Adopt a single, standard piece of paper* to take the place of orders, itinerary, vouchers and other current forms (until DoD moves to a fully automated, paperless environment.) The itinerary currently produced by the commercial travel office already contains the dates and arrangements for travel, personal and organizational information, and source of funds. The Task Force recommends building on that basis to include disclosure of entitlements (the "should cost" estimate) and (often redundant) information currently included on the other forms. This will permit single entry of data and significantly reduce processing costs.
- *Align funding authority with authority to direct travel.* The commander or supervisor responsible for the mission, the budget, and the traveler is in the best position to determine the appropriateness of travel and travel arrangements. Fund control responsibility should be delegated to the lowest practical level, and authority to obligate funds given to the commander or supervisor approving travel.

♦ **Arrangements**
- *Require that contract Commercial Travel Offices provide a full range of quality services, and require travelers to use the CTO for all arrangements.* We recommend standardized specifications for contracts with CTOs, to require the provider to offer a full range of services, to make those services available

around the clock (through a 1-800 number), and to perform to quality standards. Once improved contracts are in place, we recommend requiring the traveler to use the CTO to make all reservations, including not just air transportation but rental cars and lodging (including lodging in Government quarters) as well. Using the CTO for all arrangements provides the traveler "one-stop shopping", facilitates provision of standardized arrangements, provides better management information, permits pre-trip controls, and should lead to increased sharing of commissions.

- *Consolidate CTO contracting efforts among the DoD Services and agencies under a single procurer of travel.* The travel business is a very technical and rapidly changing one, and we need to have a single proponent who can remain current with changes in the industry to ensure DoD can maintain an effective no-cost system for official travel. A single procurer of travel would allow problems to be "fixed" once, and would further reduce the number of personnel needed to administer travel contracts.

- *Do not require use of Government quarters and messing for business travel.* Regulations designed to keep Government facilities full can interfere with mission effectiveness for travel that is not related to deployment or training. The Task Force recommends allowing the commander or supervisor authorizing travel discretion to require a traveler to use Government quarters (rather than requiring the use of Government facilities regardless of mission or circumstance).

- **Payment**
  - *Maximize the use of the Government-sponsored, contractor-issued individual travel (charge) card.* Widespread card use offers numerous advantages to the Government: potential for vastly improved management information, improved cash management, reduced problems with unmatched disbursements, reduced need to recover overpayments of travel advances, and increased opportunity for shared commissions or rebates. The card can also be advantageous to the traveler, by reducing the need to carry large amounts of cash, providing some insurance protection, potentially using card company electronic records in lieu of paper receipts and, ultimately, reducing "float to the Government" through timely electronic fund transfer (EFT) reimbursement direct to the card company. Despite the card's many potential advantages, availability has been limited by policy and acceptance has been severely limited by fear of abuse and by reimbursement long after the bill comes

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due. None of these impediments is insurmountable. The success of efforts currently underway to improve card system management, coupled with rapid reconciliation and split disbursement to the card company and the traveler, are essential to removing objections to wider card use.

◆ **Execution**

- *Empower travelers, commanders, and CTOs* to change arrangements during the course of the TDY. Ideally, a traveler should be able to call the CTO's 24-hour help line, speak with a representative familiar with both the original itinerary and the Government's simplified travel policy, and make any changes at once. The supervisor's approval of the travel expense report would suffice to support reimbursement.

- *Do not require travelers to obtain paper "nonavailability" statements.* Even when Government quarters are known at the time of arrangement not to be available, the traveler must physically visit a billeting office to obtain a piece of paper testifying to that fact. That is the most pointlessly burdensome rule the Task Force encountered. If mission requires the use of Government quarters yet none are available, we recommend simply obtaining a confirmation number at the time trip arrangements are made.

◆ **Reconciliation**

Simplified entitlements, simplified accounting, the use of "should cost" estimates, and a single piece of paper should, by themselves, greatly simplify and accelerate the reconciliation process. In addition, we recommend:

- *Authorize the supervisor who approves the travel to approve the voucher.* Arrangements, itinerary, and basic entitlements should be established at the outset, with the "should cost" estimate. Simplified entitlements, a user friendly presentation, and provision of management information are necessary to permit supervisor approval of the travel voucher.

- *Simplify and minimize receipt requirements.* The receipt threshold should be raised to $75. The receipt review and retention process should stop with the supervisor's approval of the travel. An electronic record of charge to the Government travel card should suffice in lieu of paper receipts. Receipt retention should be no more than that required by the Internal Revenue Service (e.g., three years rather than the current six).

- *Use Electronic Fund Transfer with split disbursement to the card company and the traveler.* The traveler should have the option to elect to have the Government pay the card company directly for authorized charges with the residual expenses remitted to the

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individual. Ideally, big-ticket items would be disbursed directly to the card company in a timely fashion, so that the traveler would never receive a large unpaid bill for expenses incurred on behalf of the Government.

◆ **Accountability**

- *Embed accountability throughout the system.* Build controls into each stage of the process, taking advantage of the leverage offered by simplified entitlements, automation, and enhanced management information based on CTO and card data. Minimize after-the-fact compliance audits.

- *Use random audits rather than extensive third-party review of each voucher.* The current system achieves accountability through the use of extensive third-party review of the voucher. The system is extremely labor-intensive; the resulting workload is exacerbated by complicated entitlements which tend to be a mystery to the traveler, who learns by trial and frequent error. Yet the system does not easily catch the larger abuses (such as unnecessary trips). Embedded controls, coupled with robust management information backed up by random audits, should actually yield stronger controls at significantly reduced cost. (DoD, 1995)

c. *Assemble the Building Blocks into a System.*

The previous section outlined in some detail the building blocks the DoD Task Force recommended to improve the travel delivery system. Although the individual blocks would provide a measure of improvement to the system, the blocks would not eliminate the current lack of integration. The building blocks must be integrated into a cohesive system to optimize the overall performance of the travel process.

D. GOVERNMENT ACCOUNTING OFFICE (GAO) REPORT ON TRAVEL

1. Overview

Senator William S. Cohen, Chairman of the Subcommittee on Oversight of Government Management and the District of Columbia Committee on Governmental Affairs, asked the GAO to assess travel management in DoD (Cohen, 1994). In March 1995, GAO reported the findings of their study to Senator Cohen (GAO, 1995). The report also addressed the DoD initiatives to improve the travel process.

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The report found that DoD has an opportunity to significantly reduce costs and streamline travel management citing that the current process involves multiple travel agents, uses 700 voucher processing centers, and is governed by 1357 pages of regulations. GAO found that while DoD knew the amount spent on temporary duty travel in fiscal year 1993, about $3.5 billion, it could not identify actual processing costs. GAO questioned DoD to determine if controls exceeded actual trafel costs. Responding to GAO's question, DoD estimated that travel processing costs may be at least 30 percent of the direct travel cost. This percentage is well above the 10 percent average reported for private companies and the 6 percent rate that industry considers an efficient operation.

GAO concentrated their study on identifying "best practices" used in private sector travel systems. These practices included:

- empowering employees to make travel decisions
- reducing the number of travel agents used to as few as one
- consolidating multiple travel processing centers into a single center
- simplifying travel policies to less than 20 pages (GAO, 1995)

2. Conclusions

According to GAO, DoD's current travel management processes:

> stand in striking contrast to the best practices adopted by the private sector. Clearly, DoD's travel management processes are wasteful and burdensome. The demonstrated success of best practice companies in providing essentially similar travel services serves as a model for the Department to use in gauging its progress in reengineering travel management. If DoD could successfully apply industry travel practices as part of its reengineering effort, the Department could save hundreds of millions of dollars (GAO, 1995).

DoD needs to recognize that fundamental process improvements represent a real change to a basic business process. While managing such change is difficult within any organization, it is a special challenge within DoD. Sustained top management commitment and oversight are essential for this effort to stay on course.

3. Recommendations

To improve management of travel processes and reduce costs, GAO recommended that the Secretary of Defense direct the travel reengineering transition team to:

- establish milestones for implementation of the task force recommendations,
- structure pilot efforts as a means of:
  - identifying and documenting projected costs, benefits, and savings
  - determining the need for changes or waivers to applicable statutes and regulations
  - ensuring that adequate controls are maintained to safeguard government assets prior to agency-wide implementation of proposed travel process changes
- establish performance indicators to monitor progress towards meeting travel improvement objectives.

E. SUMMARY

This chapter provides a summary of three efforts to reengineer the DoD travel process; GAO findings and recommendations are also summarized. The basic tenets of a reengineered travel system from all three initiatives are very similar. These include:

- single-level approval
- aligning authority to authorize travel with the authority to obligate funds at the lowest practical level
- empowering travelers and line managers resulting in an increased level of trust, authority, and accountability
- single travel document (electronic instead of paper)
- automatic computation of travel costs (both estimates before the trip and voucher upon completion of travel)
- payment via electronic funds transfer
- use of a government sponsored charge card for travel expenses
- MIS provided to line managers
- simplified travel rules

- random audits
- receipts maintained by traveler instead of travel system

The GAO report determined that these changes are consistent with the best practices in the private sector and should provide travel at a substantial cost savings while providing adequate controls.

III. FUNCTIONAL ECONOMIC ANALYSIS OF THE DOD TRAVEL SYSTEM

A. OVERVIEW

Based on cost estimates provided by the DPR, the travel delivery system was identified as a candidate for reinvention. However, no systematic functional economic analysis of the travel system had been performed in DoD. This chapter will address the economic benefits of reinventing travel through an analysis of the current system and the FASTravel system proposed by the Air Force. An estimate of potential savings comparing the two systems is provided.

An important element of this chapter is the identification of the methods used to determine costs. For example, actual numbers identified in personal interviews from a sampling of local commands are often used to represent enterprise-wide averages. Potential areas of additional economic benefit have been identified and are included in this chapter.

B. ANALYSIS

Understanding the current process is fundamental to business process reengineering. The practice of reengineering in DoD includes modeling the current process using the IDEF0 model (Snider, 1994). An IDEF0 model detailing the travel system through written order preparation was completed in 1993 (McDowell and Morgan, 1993). An IDEF0 model of the travel system at the Naval Postgraduate School (NPS) was completed in September 1994 (Appendix C).

Although the travel process in DoD differs not only between services but within each service, each service performs the same basic functions. This report studies the current processes at a variety of commands representative of the services. The FASTravel system proposed by the Air Force for this study can be modified to represent any service (Federal Software, 1995).

1. Current System

The primary means of identifying costs associated with the current travel system was personal interview. Figure 1 is a survey form that was used to identify each step in the travel system at a variety of commands. The interviewers completed the survey form by talking to travel personnel. Emphasis was placed on identifying the process immediately preceding and following each step in order to ensure each process was identified. In this manner, the

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interviewers walked through the travel system from the initial travel request to the expenditure of funds upon completion of travel.

In addition to identifying every process included in travel, the interviews had two other objectives. The first objective was to determine the amount of time spent in each process by both the traveler and the travel processor. The second objective was to determine the rank or grade of the individual traveling or performing a function in the travel process.

Upon completion of these objectives, an estimated labor cost for each process was determined using the travel process pay scale outlined in Appendix D. The additional benefits listed in Appendix D were derived by adding 30 percent of a service member's base pay (OPNAV, 1991) or 30 percent (Department of Energy, Undated) of a federal employee's salary (Federal Computer Week, 1994). Appendix E uses the results of personal interviews to determine the average wage per minute of each individual included in the travel process.

In order to fit the interview data to an appropriate distribution, we adapted the methodology used in Program Evaluation and Review Techniques (PERT):

$$g_e = (g_l + 4g_m + g_h) \div 6$$

where

g = grade/rank

e = estimated or weighted average

l = lowest estimate (lowest grade likely)

m = most likely estimate

h = highest estimate (highest grade likely).(McDowell and Morgan, 1993)

Each person interviewed was asked to identify the lowest, most likely, and highest grade of the individual who performs each function in the travel process.

The calculation of the average wage per minute was derived for the Naval Postgraduate School, the Defense Language Institute (Army and Air Force components), and the Air Force District of Washington. The travel process was subdivided into pre-travel and post-travel elements. The results of the interview and labor cost analysis are included as Appendices F through K.
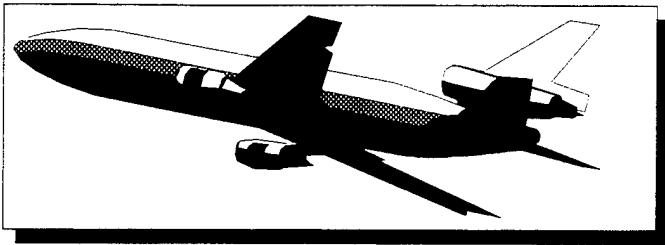
TRANSPORTATION COST ANALYSIS SURVEY FORM

Preceding Process:_____

Process:_____

Rate/Rank/GS-Level:_____

Average Rate/Rank/GS-Level of Person
Holding Position: Highest_____Most Likely_____Lowest_____

Description of
Process:_____

_____

_____

Estimated Time Spent / Travel Form:
                By Process: Pre-Travel_____Post-Travel_____
                By Traveler: Pre-Travel_____Post-Travel_____

Percentage of Job Related to Travel Form Preparation:_____

Next Step in Travel Process:_____

Figure 1. Travel Survey Form

Pre-travel process time ranged from 130 minutes of processing time and five days elapsed time to 206 minutes processing time and ten days elapsed time. Post-travel times ranged from 67 minutes processing time and same-day service on travel payments to 146 minutes processing time and nine days elapsed time.

2. Proposed FASTravel System

In order to estimate cost savings, we compared the current system with a reengineered travel system. Because it was the first travel initiative in operation, FASTravel was selected as the system proposed to replace the current DoD travel system. FASTravel is based on Travel Manager Plus, a software program currently used by over 20 federal agencies (Federal Software, 1994).

As previously stated, several initiatives are currently under development. This chapter does not attempt to evaluate all the initiatives or to make comparisons among existing initiatives. This is an area requiring additional research.

The processes involved in the FASTravel proposal show a greatly reduced time to accomplish both pre-travel and post-travel functions (Cava, 1994). Part of this reduction is attributed to technological advances that enable single-entry of the data required to complete the travel process. This provides consistent processing and eliminates duplicate data, saving time and reducing erroneous entries.

Additional time-savings are accomplished by allowing a computer to provide, verify, and compute information currently done through human resources. This eliminates most of the "hand-off" time spent transferring documents between personnel in the travel process. The limited number of hand-offs still required are delivered electronically rather than transporting physical documents.

The reduction of hand-offs significantly reduces the elapsed time required to complete each element of travel. The total elapsed time for pre-travel and post-travel is reduced to just two days each. This provides a greatly enhanced level of customer service.

The processes involved in the FASTravel system are outlined in Appendix K. The wage analysis from Appendix E used to compute labor costs in the current system was also used to compute the average labor costs under FASTravel.

3. Cost Comparisons

We analyzed the travel system at four different facilities. The resulting cost estimations were averaged and used to approximate labor costs associated with travel for all of DoD. The processing times used to compute labor costs were intended to provide a conservative estimate of the potential cost savings. Figure 2 shows the economic analysis of labor costs.

FASTravel, when fully implemented, should reduce pre-travel processing time from 169 minutes to 27 minutes -- a savings of nearly 85 percent. Pre-travel cost-per-voucher should be reduced from $61 to $14 -- a savings of 77 percent. The lower cost savings relative to the savings in processing time is due to the higher average cost-per-minute in FASTravel. The increased cost-per-minute is due to the higher average wage of the traveler who will spend time inputting data previously furnished by a travel processor.

Post-travel processing time should be reduced from 105 minutes to 30 minutes -- a savings of nearly 72 percent. Post-travel cost-per-voucher should be reduced from $39 to $13 -- a savings of 67 percent. Pre-travel savings of $546 million are derived by multiplying the cost savings per travel order by the number of travel orders processed per year throughout DoD, 11.7 million (Kauver,1994). Post-travel savings of $307 million are derived by multiplying the cost savings per voucher by the number of vouchers processed per year throughout DoD, 11.7 million, resulting in a total savings of $853 million. (See Table 1.)

	Current System		FASTravel		Reduction	
	Elapsed Time (Days)	Cost (Millions)	Elapsed Time (Days)	Cost (Millions)	Elapsed Time (Days)	Cost (Millions)
Pre-Travel	7	$709	2	$163	5	$546
Post-Travel	5	$456	2	$149	3	$307
Total	12	$1,165	4	$312	8	$853

Table 1. Cost Comparison of Travel Systems

Time (Minutes)	Pre-Travel	NPS	206	
		Air Force DLI	178	
		Army DLI	130	
		Air Force DC	163	
		Total:	677	
		Average:	169	169
		FASTravel		27
		Savings		142
	Post-Travel	NPS	146	
		Air Force DLI	67	
		Army DLI	72	
		Air Force DC	135	
		Total:	420	
		Average:	105	105
		FASTravel		30
		Savings		75
	Total Savings			217

Average Elapsed Time Current Travel System: Pre-Travel (Days)	7	Post-Travel (Days):	5
Average Elapsed Time Fast Travel System: Pre-Travel (Days)	2	Post-Travel (Days):	2

Average Labor Cost Per Voucher Current Travel System:

Pre-Travel= (NPS +DLI(Army)+DLI(Air Force)+Washington(Air Force))/4=	$60.63
Post-Travel= (NPS+DLI(Army)+DLI(Air Force)+Washington(Air Force))/4=	$38.99

Average Labor Cost Per Voucher FASTravel System

Pre-Travel= (NPS+DLI(Army)+DLI(Air Force)+Washington(Air Force))/4=	$13.96
Post-Travel= (NPS+DLI(Army)+DLI(Air Force)+Washington(Air Force))/4=	$12.75

Average Number of Travel Orders and Vouchers in DoD Per Year = 11,700,000

Savings Per Voucher:	Cost Per Form	Avg Number (Millions)	Cost (Millions)
Pre-Travel (Current-FAST)=	$46.66	11.7	$546
Post-Travel (Current-FAST)=	$26.24	11.7	307
Total Savings=	$72.90		$853

Figure 2. Total System Economic Analysis

There are several additional costs associated with the current system that would be eliminated in the paperless FASTravel system. Additional cost savings are estimated in Figure 3. These cost figures are intended to be very conservative.

The current system incurs mailing costs to ship travel vouchers and receipts from the local command to the servicing Defense Accounting Office (DAO) and ultimately to the appropriate Defense Finance and Accounting Service (DFAS) location for storage. Each box of vouchers must be shipped by certified mailed. A telephone interview with personnel at DFAS-Denver indicated a monthly receipt of approximately 1000 boxes of travel vouchers shipped at a cost of $25 to $35 per box. DFAS-Denver primarily serves as the storage facility for Air Force vouchers. The number provided was multiplied by four to estimate the total number of boxes shipped and stored by all service components.

In 1990, United Services Automobile Association (USAA) calculated a $5 million cost savings by storing forms electronically (Plesumus and Bartles, 1990). The cost savings from the USAA case study was based on 80,000 boxes in warehouses and 40,000 square feet of office space (Ives, Blake, Jarvenpaa, and Lasher, 1991). Currently in DoD, storage must be provided for travel orders, vouchers, and receipts for a period of between six and seven years.

We derived an estimate of the storage costs for DoD by dividing the number of boxes in DoD (288,000 from Figure 3) by the number of boxes in the USAA warehouses (80,000). The resulting ratio of 3.6 was applied to calculate a local storage requirement in DoD of 144,000 square feet. Based on the cost savings experienced by USAA, we estimated storage and support cost savings of nearly $20 million.

We identified costs of the current system that include an access cost applied any time information is retrieved from vouchers located in a storage facility, cost of printed forms, and copy costs totaling nearly $9 million annually. These costs would be eliminated through paperless implementation of FASTravel.

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Mailing Costs:

Ship 4000 30-40 lb Boxes Per Month to DFAS at a Cost of $25-$35 Per Box

Ship 4000 30-40 lb Boxes Per Month to DAO at a Cost of $25-$35 Per Box

Mailings = 8000 Boxes/Month * $30/Box * 12 Months/Year= $2.9 M

Forms Cost:

$11.00/100 (Travel Vouchers) * 11,700,000 Forms = $1.3 M

$7.50/100 (Travel Orders) * 11,700,000 Forms = $0.9 M

Total Forms Cost = $2.2 M

Copy Cost:

$0.03/Copy * 5 Copies/Page * 2 Pages * 11,700,000= $3.5 M

Storage & Support

     Costs:

Clerical staff, Office staff, Office space (active storage),

Warehouse space (inactive storage), equipment,

and Supplies.

Warehouse Storage: Storage of 288,000 boxes

(4000 Boxes/Month * 12 Months/Year * 6 Years)

Ratio: 288,000 Boxes / 80,000 USAA Boxes = 3.6

Local Files: 144,000 Square Feet of Office Space

(40,000 Square Feet USAA Office Space* 3.6)

USAA Cost Savings Adjusted for Inflation ($5.5 Million * 3.6) $20 M

Total of Additional Costs: $29 M

Total Labor Cost Savings: $853 M

Total Annual Savings: $882 M

Figure 3. Additional Cost Savings Estimates

Based on the data given above, the potential annual cost savings of implementing FASTravel DoD-wide is calculated to be $882 million. (See Table 2)

	Cost (Millions)
Total Labor Cost Savings	$853
Total Additional Cost Savings	$29
Total Cost Savings	$882

Table 2. Total Cost Summary for DoD

C. FINDINGS

The real problems with the current travel system are not just the cost of administering travel. The real problems are:

1) Excessive outstanding travel advances

2) Unmatched vouchers

3) Poor customer service (i.e., elapsed time of travel processing).

Outstanding travel advances could be eliminated by replacing the current system of advance travel checks with cash advances on government sponsored individual charge cards from Automatic Teller Machines. The current system requires an estimation of travel expenses, preparing an advance check, reconciling travel expenses, and preparing another check to cover additional expenses. If the amount of the advance check exceeded the actual travel costs, an even more complex method of recapturing the money from the traveler is required.

Unmatched vouchers could be eliminated by allowing the FASTravel system to directly access the accounting system that controls travel funds. The information system used to access the accounting system would provide the controls currently provided manually by human resources. Combining the travel request, itinerary, order, modification, and voucher forms into a single document provides the system integrity necessary to eliminate unmatched vouchers.

Customer service, as defined in terms of elapsed processing time, would improve by a factor of three. Customer service, defined in terms of increased trust and autonomy for the traveler and line manager authorizing travel, would increase immeasurably. These are the real reasons to reinvent travel as soon as possible. The estimated annual savings of nearly a billion dollars should be viewed as a reward for making the changes that are sorely needed.

While the potential dollar savings are substantial, it is our opinion that DoD will realize only a portion of the savings. Recapturing the cost savings in any reengineered system is challenging. Within the DoD, several costs (e.g., storage and personnel costs) are not currently included in the travel system. It will likely be as difficult to identify the cost savings as it was to identify the actual costs. Additionally, most savings are not realized until well into the Information System Life Cycle. For these reasons, commands that begin an effort to reengineer the travel system should not expect immediate reductions in travel budget line items.

The cost estimates produced in this study were the first known comprehensive effort to identify the administrative costs within the DoD travel delivery system. As previously mentioned, the figures are estimations based on personal interviews, sampling, and extrapolating local costs to enterprise values. The exact figures used in compiling the estimate were not verified in a GAO report released March 1995 (GAO, 1995). However, the general estimate derived by GAO seemed to validate both the cost estimates of the current system and the potential savings through implementation of a reengineered travel delivery system.

D. POTENTIAL ADDITIONAL ECONOMIC BENEFITS

Several items were identified that should be investigated for additional economic benefit. We felt that a comparison of FASTravel and DTPS could expedite a DoD-wide solution to the travel system. At first glance, the ability to employ a commercial off-the-shelf software program with FASTravel results in a faster, more cost-effective approach than building a DoD-specific system with an in-house staff. This approach is certainly consistent with Vice President Gore's announced preference to use commercial products whenever feasible. A more detailed study confirmed this initial impression and resulted in the cancellation of the DTPS project in October 1994.

Processing travel vouchers is another area for potential cost savings. Table 3 details the amount DFAS expects to charge each service for processing travel vouchers in 1994 -- a total of $89 million. DFAS expects the cost to be $13.46 per voucher (Lechner, 1994). Outsourcing through a contract such as GELCO PayNetwork might provide this service for as little as $0.90-$1.40 per transaction (Pham, 1994). Prototyping a travel system could determine if outsourcing can provide the same level of service currently provided by DFAS.

Defense Accounting Office Vouchers Processed	Finance Center Vouchers Processed	Total Vouchers Processed	Cost Per Voucher	Total Cost of Processed Vouchers (Millions)
Air Force				
1,777,690	897,596	2,675,286	$12.68	$34
Army				
2,308,207	697,620	3,005,827	$13.90	$42
Navy				
314,771	697,596	1,012,367	$13.16	$13
			Total Cost of all Processed Vouchers	$89

Table 3. Defense Finace Accounting Systems Travel Charges for Processed Vouchers

Another potential area for cost savings is the contract with American Express to provide government credit cards. If FASTravel allowed the traveler to purchase airline tickets with the American Express card and provided payment via electronic funds transfer (EFT), American Express would benefit greatly. It seems reasonable to re-negotiate the contract with American Express in order to obtain more favorable terms. A possible scenario would be to negotiate a reduced charge for cash advances. By reducing the current fee of 2.75 percent for cash advances, the government could realize substantial cost savings. Further study could identify other options that would benefit both American Express and DoD.

The potential areas for cost savings seem as endless as the possibilities for expenditures. The bottom line should be to aggressively pursue a system of travel that will take advantage of available technology to the benefit of the United States Government.

IV. NAVAL POSTGRADUATE SCHOOL TRAVEL SYSTEM

A. OVERVIEW

Efforts to modify the NPS travel system grew from the designation of NPS as a Defense Performance Review (DPR) Reinvention Laboratory. While working with the DPR, Dr. David Whipple, NPS Director of Reinvention, observed the Air Force efforts to reengineer travel using Travel Manager Plus. Dr. Whipple relayed the Air Force efforts to several people at NPS including the NPS Comptroller, Captain Steve Kesselring, and NPS Information Systems Professor, Dr. James Emery.

The comptroller's office purchased Travel Manager Plus Version 4.0 (Financial Version) to automate the current system. There was no effort by anyone in the group to reengineer the system. Their concept was to automate as much of the old system as possible to reduce the amount of hand-off time required to move travel documents through the numerous steps of the current process.

While the comptroller purchased the software, Dr. Emery was asked by the Air Force to provide an economic analysis of the travel system. This resulted in the functional economic analysis provided in Chapter 3. The research required to complete the economic analysis later expanded to include an analysis of the DoD travel system.

Meanwhile, a customer survey by the reinvention laboratory at NPS indicated that the school's travel system needed improvement. Although a large number of survey responses expressed concerns over the travel system, no initial efforts were made to address these concerns. NPS Reinvention Coordinator, Lieutenant Commander (LCDR) Bob Forwood, assumed his duties in January 1995. LCDR Forwood decided to form a cross functional team to analyze and improve the travel system.

The travel reengineering team was formed in March of 1995 and consisted of representatives from a variety of functional departments involved in the travel process. The members included a departmental travel clerk, comptroller representatives, Personnel Support Department (PSD) representatives, a commercial travel office representative, and other supporting members.

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B. DESIGN

The first step for the NPS travel team was to design a new travel system using Business Process Reengineering principals. The group began developing the new travel system from a clean sheet of paper. The team accomplished this by breaking down old paradigms and eliciting new ideas.

1. Travel System Foundation

The following ideas form the foundation for the Naval Postgraduate School's new travel system.

- *Mission essential.* All temporary duty travel (TDY) is mission essential and no longer viewed as a perk.

- *Empowerment.* This results in an increased level of trust, authority, and accountability. It also allows the system to treat travelers and line managers as honest customers.

- *Management Information System (MIS)* . The MIS will provide real time data to the AA on account balances. The system will also flag any differences from the travel rules that the traveler is requesting. The system is simple to use and can provide summary information with the ability to "drill down" to more detailed information on a topic as required.

- *Trip Record.* The new system will have a single document that replaces the request, itinerary, orders, amendments, and vouchers. This single record will be electronic. A hard copy of the trip record can be provided if requested.

- *Single source data entry.* This allows information to be transferred electronically between the necessary workflow points. This will reduce errors from redundant data entry and will reduce the total time required to process a travel request.

- *Authority in the commander.* The new system aligns the authority to travel and the authority to obligate funds to the AA. The AA can authorize expenses above the should-cost to ensure completion of the mission. This allows for a shift from "control by approval" to inherent controls verified by audit.

- *Should-Cost Estimates.* These estimates will provide both the traveler and the AA with an accurate estimate of what costs should be incurred to accomplish the mission. This estimate includes the actual cost of the airline ticket, lodging, and rental car. The cost will also reflect pier-diem and mileage rates as applicable.

- *Single level of approval.* The AA will be the only approval needed for a travel request and voucher (if it matches the should-cost estimate or it is within a specified tolerance determined by the comptroller's office).

- *Traveler retains receipts.* The traveler will retain receipts for anything over $75 dollars. These receipts stay with the traveler and are produced only if the trip record is audited. The traveler retains the receipts for three years. This concept parallels the receipt retention process endorsed by the Internal Revenue Service.

- *Maximum use of government charge card.* Everyone will have the opportunity to obtain a government sponsored charge card. Although use of the card is strongly encouraged, it is not mandatory. All charges incurred on the card are available to travel managers through the MIS in Travel Manager Plus. If a traveler uses the card for expenses, the system would have a record of each transaction. This means that an effective audit could occur without asking the traveler to produce a receipt.

- *No Cash Advances.* Because every traveler will have had the opportunity to obtain a card, no cash advances will be issued. The charge card should be used to obtain necessary cash advances.

- *Electronic Fund Transfer (EFT) and Split disbursements.* The use of EFT will dramatically reduce the payment time of vouchers. Using the information provided on the single source trip record as payment data reduces the number of unmatched vouchers. Split disbursement gives the customer the authority to split their payment between the charge card company and their bank account. The traveler will determine how much, if any, will go to the card company.

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- *Partial payment of travel over 30 days.* If a traveler will be traveling more than thirty days, they will automatically receive partial payment for that trip based on the should-cost estimate. This allows the traveler to receive timely payment for expenses incurred on government travel.

- *Random Audits.* The comptroller's office will ensure random audits are conducted to maintain the integrity of the travel system. A random sample of the trip records will be chosen for audit. The audits may require the traveler to provide receipts for lodging and any expense over $75. Again, the traveler can use the charge card information provided through the travel system MIS for all expenses charged on the card. This could allow the audit to be conducted electronically without creating an imposition for the traveler.

2. Travel Flowchart

The flowchart in Figure 4 outlines the new travel system for NPS. Federal Software's Travel Manager Plus Version 4.1 (DoD Version) provides the coordination and seamless integration of the design. The following is an overview of the travel processes outlined in the flowchart.

- *Trip Statistics Input.* Upon identifying a need to travel, the traveler will enter information about the trip into the software program. The information will include destination, itinerary, estimated expenses, etc.

- *Commercial Ticket Office (CTO) Books Reservation and provides should-cost estimate.* The initial trip information is electronically sent to the CTO. The CTO makes the reservations and provides the estimated costs of the airline, lodging and rental car. The software then generates a should-cost estimate based on the traveler and CTO input. The record is then sent electronically to the AA.

- *Trip Approval.* The AA will receive the trip record with a should-cost estimate. They will then review the balance of the identified travel fund code to determine if the money is available. If the money is available and the AA feels the trip is justified, then the record is approved. The accounting database is

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Pre-Travel | Post-Travel

Pre-Travel:

Trip Stats Input → CTO Bookings Should-Cost Estimates → AA Check DB $$ → Approve (N) → Update DB → CTO Cut Ticket/ Itinerary → Traveler Receives Ticket/Itinerary → 1

Post-Travel:

1 → Trip Taken? (N → Data for Cancelled Trip → Return Tickets for Credit) → Enter Data From Trip → $$ Cost ok? (YES) → ^$ Cost ok? (AA) (YES) → Traveler Concurs (YES) → Resolution → Payment DDS/EFT

Update DB $$

Figure 4. Naval Postgraduate School Travel Flowchart

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updated and the record is sent to the CTO to confirm reservations and purchase tickets. If the AA feels the trip is not justified or there is no money, the record will be returned to the traveler. The traveler must decide if the trip is essential to the mission and address the issue with the AA.

- *Database updated for travel request.* After the AA approves the trip, the database is automatically updated. This is accomplished by obligating the should-cost estimate of the trip against the fund code cited (plus any "safety factor").

- *CTO confirms reservations and purchases tickets.* The CTO receives the approved request and confirms all reservations and purchases the airline tickets using the travelers government charge card.

- *Traveler Picks up Tickets.* The traveler will be notified electronically that their request has been approved. The traveler can print a copy of the trip record if desired.

- *Was the trip taken?* If the trip was taken, the traveler will input the data from the trip. However, if the trip was not taken, the traveler will cancel the trip record and return the airline tickets for credit.

- *Database Update for canceled trip.* Upon canceling the trip, the database will automatically be updated to deobligate funds. This includes the money spent on the airline tickets.

- *Data from trip.* Upon returning from the trip, the traveler will input all expenses incurred. The program will then calculate the actual cost of the trip. If the actual cost is within the comptroller specified tolerance, the record automatically goes for payment and the database is updated with the fund cite expenditure. However, if the amount is outside the prescribed tolerance, the trip record goes to the AA.

- *Approving Authority for payment.* The AA reviews the reported expenses and can either approve or deny the excess costs. If the AA approves the excess

costs the record is sent for payment and the database is updated. If the AA does not approve the extra expense, the trip record is returned to the traveler.

* *Traveler Review after the AA.* If the traveler agrees with modifications made by the AA, the record is approved, sent for payment, and the database updated. However, if the traveler and the AA cannot agree, the record will go to the comptroller's office for resolution.

* *Resolution.* The comptroller's office will review the record and make a determination based on the travel rules and regulations. After resolution, the record is sent for payment and the database is updated.

* *Database Update for payment.* Once the record is sent for payment the database will be updated to reflect that funds were expended. This process should eliminate unmatched vouchers.

* *Payment.* The voucher payment will be done electronically by GELCO government services. The EFT will be made directly into the traveler's bank account. The traveler will also have the option of sending part of his payment directly to the charge card company.

C. IMPLEMENTATION PLAN

A phased approach is being used for the implementation of the new NPS travel system. The five phases of the implementation plan will include marketing, contracting, installation, testing, and rollout of the new system. Each of the five phases is critical to the success of the entire project. These five phases are not mutually exclusive and may overlap each other. Some of the phases will be ongoing throughout the project.

1. Marketing

The first phase of the implementation plan is marketing the new system. To implement the system the users must be convinced that it is a solid plan. The idea must be presented as a benefit to them. An extensive outreach campaign to inform the users of the benefits and to solicit ideas for improvement tends to reduce the inevitable resistance to change.

The reengineering team identified three departments to serve as the initial test departments for the new travel system. An initial meeting was scheduled to brief the department chairmen and the administrative assistant responsible for travel on the concept for the new travel system. The brief outlined the philosophy behind the new system, how travel will be completed using the new system, and what the department needs to accomplish prior to testing the system.

The marketing plan centers on key components of the new travel system. Key components include the focus on providing greater trust in the traveler and the AA; greater control through the use of information technology; increased customer service in terms of convenience, timeliness, and flexibility; and the ability to participate in a reinvention project with the promise of revolutionizing a business process within the foremost bureaucracy of all time.

A major selling point is the fact that NPS is one of 32 pilot sites for the DoD travel reinvention project. This makes people aware that DoD travel is going to change. Instead of changing when DoD changes, why not change the system the way that NPS feels it should be?

2. Contracting

The second phase of the implementation plan is contracting for the travel software for the new travel system. The contract will include an overview of the network infrastructure, interfaces, training requirements, and technical support needed to install and maintain the system.

a. Network Infrastructure

One of the key components of the new travel system is the proper installation and configuration of a travel management software package. This package must be readily accessible by all users including the approving authorities, administrative personnel, commercial travel office, and travelers. Each user must have access to the travel application, electronic mail, and accounting information for assigned fund codes. Without these elements, the user cannot complete the mission in a timely and efficient manner within acceptable control parameters.

The MIS department determined which network server would support the Travel Manger software. For the initial installation and test of the software, a Sun UNIX server will be used. The new software will migrate to a Digital Equipment Coorporation (DEC) Alpha II Server.

The use of a Sun UNIX server provides the travel application, electronic mail, and accounting information needed for the new system to be successful. In conjunction with these key elements, Travel Manager supports DOS, Windows, Macintosh, or UNIX systems. This allows NPS to use a single off-the-shelf software package for the various operating systems located throughout the organization.

b. Interfaces

Any travel management software package must be compatible with current information systems. Interfaces have to be developed between the software package and existing accounting information systems, travel reservation systems, and payment information systems. These are three interfaces that an organization must have to achieve a single data entry travel system.

Initially, the NPS travel system will only use the accounting and payment interfaces. NPS is contracting with Federal Software to build an interface between Travel Manager Plus and the local accounting system. This interface allows the user to view the balance of the fund code for a trip and to obligate funds. NPS will use an interface within Travel Manager Plus for the electronic payment of the trip record.

Currently, there is no information system available at NPS that can provide electronic payment. This interface allows NPS to use a third party, GELCO Government Services, to provide payment.

The current proposal for the third interface is to send the information electronically to the commercial travel office (CTO) using Travel Manager Plus. When the CTO receives the trip record, it will make the provisions on its reservation system. After making the reservations, the information required to complete the trip record and should-cost estimate is typed into Travel Manager Plus. This does not provide single

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data entry into the system or seamless integration of the entire process. However, a direct interface to the reservation system is being developed and will be tested upon completion.

c. Training Requirements

A major stumbling block for long term projects is the proper training and support for all users. A strategy for long-and short-term training must be addressed if a project is to survive. NPS is contracting training for all users from travelers to system administrators.

The initial training provided by Federal Software will indoctrinate trainers with the process. The trainers will then train other users. The strategy must be to continue training throughout the implementation process and into the fully operational travel system. Training for any functional changes to the software should be provided by Federal Software while training for organizational travel changes should be provided by NPS.

d. Technical Support

The final area of concern for the contracting phase deals with technical support for the software package. The initial technical support should ensure that the software performs as promised in all operational environments. After the initial support, the organization must make a long-term commitment to resource the technical support for the travel system. This includes routine maintenance and updates to the software. Most organizations are very good in obtaining the initial support but fail to recognize the need for long-term support.

3. Installation and Policy

The installation and setup phase will overlap the other phases of the implementation plan. The major concerns of this phase include establishing organizational travel polices and installing the software. Implementing the new rules and regulations outlined in the design phase of the system requires senior level support. The senior leadership must agree to the changes and issue directives reflecting their commitment.

The largest part of the installation process is installing the Travel Manager Plus software. Federal Software is sending a technical representative to oversee installation. NPS technical support and travel representatives will assist in the installation. The software installation also includes installing the interfaces, initial setup of the database, and ensuring the application will run on DOS, Windows, Macintosh's, and UNIX workstations in accordance with the contract.

Some policy areas that are time-critical include charge card applications, establishing approval authorities, and outlining user responsibilities. The Government charge card is a vital part of the new system and every member of the test departments should have a card. It must be clear to everyone involved in the test departments that when the test begins there will be no more cash advances.

The second area of concern is setting up the approval authorities. The approval authority will be the person(s) who is in charge of the travel funds and has the authority to spend that money. This eliminates the need for the comptroller's office to approve every trip record.

Another time-critical area is identifying user responsibilities. The responsibilities of every person involved with the new travel system have changed. The traveler now has the responsibility of providing ample information to justify his trip. The approving authority now is the only person who has to approve a travel request and payment. The system administrators have to ensure that the system is maintained at peak efficiency. The travel administrators have to ensure that the application software is current. It is important that every player in the system know his or her role.

Another area of concern is the initial setup of information. All the fund codes for the school will be entered into the system along with the authorizing officials for that fund code. This setup allows NPS to use the infrastructure in place for the new travel system.

4. Testing

Before bringing any of the departments designated for the test period on-line, the application and interfaces will be thoroughly tested. The application must demonstrate

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the capability to accurately calculate should-cost estimates and payment information. The interfaces will be tested to ensure they can pass the information between systems without error.

To evaluate these functions NPS is going to process completed travel orders through the new system and compare the results. The results may be different because of the entitlement changes. However, the changes in entitlements have only a minor effect on any calculations.

The test will determine that the application is transportable between DOS, Windows, Macintosh, or UNIX workstation environments. The three test departments will start their test period after the software passes initial tests.

The test departments will process travel through the new system and document any problems. The travel administrators and the reengineering team will monitor the activities of the departments and compare results with the old travel system. The test phase will help answer any questions about the new system. It will also point out any deficiencies of the system.

5. Rollout

The final phase of the implementation strategy encompasses how the new travel system will spread throughout the organization. The NPS Travel Team has not outlined a rollout strategy. However, an informal plan seems to exist. After completing a successful test in the first three departments, the system will expand to include the Systems Management department. This will test both a larger, more cumbersome department and will allow testing the system on the new DEC Alpha II server. After testing the system in Systems Management, the travel system will be available to the entire organization.

D. SUMMARY

The new travel system at the Naval Postgraduate School is going to be a unique opportunity for the school to pave the way for other DoD commands. This system embraces brave new ideas that make people more responsible for their actions. The

travel team realizes that mistakes will be made with the new system and those making honest mistakes will not be punished. However, fraud will not be tolerated and the individual will be punished accordingly. The masses will no longer be punished for one person's indiscretions.

The new system is functional and easy to use for everyone. Travel will no longer be a burden on the traveler. Instead, they will be able to travel hassle-free and get reimbursed in a quick and efficient manner. The checks and balances of the current system are being built into the application, thereby making the system fair and impartial for all users.

V. A FRAMEWORK TO REENGINEER TRAVEL

A. OVERVIEW

Many people in Congress and in the Department of Defense (DoD) have questioned how to increase accountability in business processes throughout DoD (McCaffery, 1995). Often, the question occurs in the context of management failings and a lack of individual accountability. This context seems to suggest that people are the source of the problems affecting the business process in question. If people were the problem, then a people solution reflecting increased leadership responsibilities and enforcing individual accountability would be appropriate.

As indicated in Chapter Two, the research and customer surveys conducted by NSA, GAO, AFDW, and the DoD Task Force to Reengineer Travel point out that the problems with DoD travel are not the fault of people but with the travel delivery system. Because people are not the problem, increasing individual accountability is not the solution. Increasing individual accountability in a bad system tends to make people better at doing something that makes little sense from a broad perspective. This is what Chris Argyris (1990) called skilled incompetence.

DoD needs a framework to reengineer business process that looks beyond individual accountability toward a broad systems perspective. Peter Senge (1994) explained that systemic problems often drive people to fail. Specifically, people may fail to act responsibly, reasonably, or logically. People may also fail to act within control parameters of the bad system. Working around the system often occurs because the system is non-sensical or even intolerable.

This chapter will address how to approach a radical change to a major business process. The NPS travel reinvention effort is compared to a generic intervention model for change. The focus will be on methodologies and a framework to change the system. The framework proposed is intended as a tool to reengineer the DoD travel system. However, the framework is generic and can be applied to other business processes within DoD.

B. AN APPROACH TO SYSTEMS THINKING

One of the fundamental changes facing organizations today is the focus on teams rather than individuals (Sprague 1993). The dominant portion of tomorrow's workforce will consist of teams made up of knowledge workers. Knowledge workers are specialists who direct their own performance based on feedback from colleagues, customers, and corporate headquarters.

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According to Peter Drucker (1988), knowledge workers will increasingly resist the command and control hierarchy of traditional organizations. While the command and control hierarchy is essential to effective combat readiness in the DoD, organizations supporting the combat effort are likely candidates to restructure to take advantage of the concepts of empowerment, total quality (Deming, 1986), business process reengineering (Hammer, 1990), and parallel learning structures.

The travel delivery system in DoD is a support system that should attempt to create a parallel learning structure. According to Bushe and Shani (1991), parallel learning structures are used to overcome the shortcomings of formally structured organizations without the long, costly, and often futile attempt to restructure the entire organization. Parallel learning structures create a time and a place to allow innovation to occur. The degree of change proposed in overhauling the DoD travel system is consistent with a principle purpose of parallel learning structures: implementing system-transforming innovations.

1. The Generic Intervention Model

The basic idea of a parallel learning structure is to create a microcosm of the organization that learns to create changes for a specific purpose. A parallel learning structure intervention is complex and is never meant to be a "silver bullet" solution to every managerial or organizational problem. Although each intervention is different, the model generally involves eight phases.

Phase I consists of the initial definition of purpose and scope. This is the time when senior management must know the purpose of the intervention and understand how the parallel learning structure will function. Once the purpose and expectations are clearly understood, senior management must be both willing and able to articulate them to the organization.

Phase II, the formation of a Steering Committee, includes examining the need for change, creating a vision statement, and defining boundaries, strategies, expectations, and rewards. Simply forming a steering committee will not ensure success. The committee must have the authority to approve actions of the parallel learning structure and to serve as liaison between the formal organizational structure and the learning structure.

The committee is responsible for the formation and operation of study groups within the learning structure. An essential element for the committee is to provide incentives for members of the organization to participate in the study groups. Coordinating the activities of the study

groups while ensuring continued senior management support is the critical job for the steering committee.

Phase III involves communicating to organization members outside the parallel learning structure. This is important to increase the level of participation throughout the organization. Some resistance to change is inevitable. Communicating the purpose, intention, and expected benefit of establishing the learning structure is the first step towards overcoming the resistance to change.

Phase IV, the formation and development of study groups, includes establishing working procedures and study group development for members and facilitators. The goal of establishing working procedures is to increase effective communication in order to facilitate innovation. Treating established procedures as law will inhibit the creative process. The procedures should be viewed as experimental and continually open to change.

The goal of study group development is to establish a sense of openness, trust, and respect where each member of the group is an equal. A key to achieving this goal is selecting group members **representative** of the organization without the members acting as **representatives** from their part of the organization. Accomplishing the desired level of trust and openness is a journey that requires a talented facilitator.

Phase V, the inquiry process, is the attempt to develop shared understanding and meaning from collected data. This process can be one of several inquiry methods. The context of the problem should determine the method used. For the DoD travel system, the tools of business process reengineering could be used if a parallel learning structure was established.

Phase VI involves identifying potential changes and presenting the data through cost-benefit analysis or some other means. The study groups of the learning structure take the data collected during the inquiry process and design system changes. The changes are usually proposed to the steering committee that is responsible for approving the recommendations.

Phase VII is the experimental implementation of the changes proposed in Phase VI. The recommended changes approved by the steering committee are presented to senior management to allocate resources for implementation. Although the steering committee has the support of senior management, final responsibility for experimental implementation rests with senior management.

It is extremely important to remember that the entire parallel learning structure is actually an experiment. The key word in the process is "learning." The organizational climate must allow and support failures that produce learning.

Phase VIII, system-wide diffusion and evaluation, is the basic roll-out strategy for full implementation. An element often overlooked in implementing systems within DoD is the style of implementation. Style is the approach applied to effect full-scale acceptance or usage. There are at least two vastly different implementation styles.

The first style is commonly known as the "Hammer Approach." This style forces organizations to adopt the new system through compulsory regulation, usually by a set date. This approach is expedient, well known, and compatible with a hierarchical organizational structure. It does not foster a strong sense of commitment to change for the end-users.

The next style is lessor known as the "Hamming Approach" for Professor Richard Hamming (1994) of the Naval Postgraduate School. Professor Hamming developed this approach as a scientist at Bell Labs. He stated that this style consisted of implementing a new system in a few critical or visible organizations. News of success of the new system invariably leaked (sometimes with help) to other organizations who then requested (sometimes demanded) that they be allowed to use the new system.

While the "Hamming Approach" is certainly slower and arguably riskier than the "Hammer Approach", it does generate a higher degree of end-user commitment to adopt the new system. After all, the end users requested the new system. This serves to greatly reduce a potentially large source of resistance.

2. Sociotechnical Systems Redesign

The generic intervention model described above is almost identical to the sociotechnical systems redesign model offered by William Pasmore (1988). Pasmore's model included a step to determine how the environmental demands of competitors, shareholders, corporate management, and customers might impact the nature and scope of changes in an organization. This is certainly a valuable step and is assumed to occur in Phase I of Bushe and Shani's generic intervention model.

The real difference between the two models appears to be the implementation. The generic intervention model proposes implementing the model outside but parallel to the formal

organizational structure. The sociotechnical systems redesign model aims to change the entire organizational structure.

3. Tools of BPR

The use of parallel learning structures is appropriate for innovation. Combining this structure with the tools available in business process reengineering (Hammer and Champy, 1993) would enable the DoD travel delivery system to drastically reduce administrative costs while radically improving customer service. While Michael Hammer has enjoyed tremendous commercial success with a "how to" book on reengineering titled *The Reengineering Revolution* (Green, 1995), a collaborative effort of many people from AT&T provides a better reengineering framework to build a better travel system in DoD.

According to AT&T (1991), the reengineering strategy should include four steps. The first step is to evaluate benefits, costs, and risks. The primary activity for this step is to evaluate the feasibility of a reengineering project based on expected benefits, risks, and the environment. The deliverables for this step are the decision to begin, the charter for the reengineering team, and a strategy for change management.

The second step in reengineering is to recommend a concept for a redesigned process. The primary activity for this step is to develop and evaluate concepts for a new process design based on customer requirements, benchmarking, and innovative ideas. The deliverables for this step are innovative ideas, high-level flowcharts, estimated requirements, preliminary feasibility analysis, and the decision to continue.

The third step is to design the process. The primary activity for this step is to develop and evaluate the detailed design. The deliverables for this step are detailed flowcharts, process measures, prediction models, final feasibility analysis, and the decision to implement the redesigned process.

The fourth step is to implement the process. The primary activity for this step is to develop the final implementation plan and select the cutover strategy. The deliverables for this step are the implementation plan, plan for organizational redesign, implementation of change management plan, and a redesigned process that is continuously managed.

4. Comparing NPS Reinvention Efforts to the Generic Intervention Model

Comparing the NPS travel reinvention effort to the generic intervention model illustrates areas that could be improved. Table 4 provides a comparison of the NPS reegineering team against each phase of the intervention model. Because the reinvention effort is ongoing, NPS has not entered the final two phases of the intervention model.

Generic Intervention Model (Phases)	Naval Postgraduate School Reengineering Efforts	
	Followed Model	Comments
I. Initial Defenition of Purpose and Scope	No	The travel reengineering team developed a charter without input from senior management.
II. Formation of Steering Committee	No	The team had no senior management representation and lacked the authority to make changes.
III. Communication	No	No formal communication prior to the design of the new travel system.
IV. Formation and Development of Study Groups	Limited	One cross-functional group which met two hours per week. No human resources allocated full-time.
V. Inquiry Process	Yes	
VI. Identify Potential Changes and Present Data	Yes	Briefed Executive Steering Committee in May 1995.
VII. Experimental Implementation	Planned	Intial test to include three departments.
VIII. System-wide Diffusion and Evaluation	Unknown	Will determine after completion of Phase VII.

Table 4. Comparing NPS Reinvention Efforts to the Generic Intervention Model

In general, NPS did not allocate adequate resources to the strategic planning, design, or implementation of the travel reinvention project. The travel reengineering team was essentially an ad hoc workgroup with no guidance, vision, or direction from a steering committee. The travel reengineering team was responsible for analyzing the current travel system and designing, procuring, testing, and implementing a totally new system. The team attempted to do this by

meeting approximately two hours per week while spending the remaining 38 hours of the work week at their "real" jobs.

The travel reengineering team performed most of the functions of phases V and VI of the intervention model. This produced the design for a new travel system with tremendous potential benefits. The team recommended purchasing a software package that provides the requisite technology for the new design. However, the failure to adequately address phases of the intervention model, such as communicating the vision throughout the organization, is likely to require an uphill battle to effect the organizational change necessary to implement the new design.

C. SUMMARY

The plan laid out, to establish a parallel learning structure and use a four-step approach to business process reengineering, appears simple. However, it is extremely complex and requires numerous initiatives in the management structure of DoD to successfully implement. This plan is only the framework that barely scratches the surface of what is required to accomplish and does not address the time and resources involved to carry out a reengineering project.

While this dramatic level of change in many DoD business processes in general and the travel system in particular is overdue, there is ample reason for skepticism of the ability to accomplish this radical change. One of the critical factors for success is the support of a high-level champion to see the project through inevitable strong resistance forces (Champy, 1995). The rapid turnover of military and high ranking civilian political appointees in key billets is a strong deterrent to a champion stepping forward to fight the battles of a long-term reengineering project. Often, opposition outside DoD (from the direction of Capitol Hill) is enough to make the most adamant proponent for change run for cover.

VI. LESSONS LEARNED

A. OVERVIEW

Bushe and Shani (1991) define learning as "the creation and/or implementation of new thoughts and behaviors by employees." This chapter articulates new thoughts derived through researching the DoD travel system and working with the NPS travel reengineering team. The lessons stem from experience as well as observation.

The importance that corporations place on learning is exemplified by international Learning Conferences held semi-annually by Global Business Network. Peter Schwartz (1991) described the success of the Learning Conferences in the following terms:

> The meetings did not "work" in the sense of creating any tangible product. Rather, they led to understanding and collaborations, for both the corporate clients and the participants.

This chapter does not produce a tangible product for changing the DoD travel system. The intention is to foster understanding and collaboration for DoD organizations that attempt to reengineering travel. The lessons provided are the authors' opinion based upon results of a literature review and observation. The lessons shared here also apply to DoD reengineering efforts other than travel.

B. SENIOR MANAGEMENT PARTICIPATION

The single most reinforced lesson has been the need for senior management participation in driving the change effort. John Kotter (1995) said that "... major change is impossible unless the head of the organization is an active supporter." Hammer and Champy (1993) clearly stated that:

> Reengineering, in contrast (to TQM), is an intensive, top-down, vision-driven effort that requires nonstop senior management participation and support.

Davenport (1993) agreed that "... process innovation is not normally a bottom-up activity." Still, the effort to reinvent travel at NPS is void of senior management participation and has received only verbal support. No resources, human or financial, were identified, offered, or made available. No senior management involvement is evident in the creation or communication of a vision for the NPS travel system.

One measure of involvement of NPS senior management in changing the travel system is a comparison to the Eight Steps to Transforming Your Organization (Kotter, 1995). The eight steps are:

- establishing a sense of urgency
- forming a powerful guiding coalition
- creating a vision
- communicating the vision
- empowering others to act on the vision
- planning for and creating short-term wins
- consolidating improvements and producing still more change
- and institutionalizing new approaches.

NPS senior management has either not addressed or has been ineffective at addressing any of these eight steps.

It is difficult to be more precise in analyzing the support of NPS's senior management because the support is either transparent or non-existent. The only known involvement of NPS senior management with the travel project was listening to one brief on the travel reengineering team's concept for NPS. The travel team requested, and was allowed, to brief the school's executive steering committee (ESC) in May 1995.

During the brief, the ESC voiced support for the project but offered no tangible resources. The sentiment from the ESC chairman was surprise that the project design had not been implemented. This sentiment seems ironic when viewed in context of the need feed for senior management participation in effecting organizational change.

While senior management at NPS has been weak in active participation, senior management within DoD apparently understands the top-down implementation principle

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for reengineering efforts. Senior DoD officials provided the charter for the DoD Task Force to Reengineer Travel (DoD, 1995). The task force had the power and support to proceed with recommended changes. Leaders of the task force appear to understand the challenge of implementing the newly designed travel system as evidenced by DoD task force co-chair Ms. Karen Alderman stated (Shoop, 1994):

> There are so many different communities involved in the Department of Defense that getting agreement is difficult. And there are also cultural changes. After all, we are trying to empower travelers, by allowing them access to a system without a front-end check.

This statement also indicates senior management involvement in the critical area of communicating the vision for change.

Senior DoD managers involved in the effort to reinvent travel have read the reengineering literature, conferred with change management consultants, and understand the philosophy and challenges of implementing an organizational change program. The biggest challenge remaining for senior DoD managers is creating an environment free from fear and mistrust in order to promote both initiative and acceptance to change. Unless the culture in DoD changes to encourage initiative by allowing room for failure, change efforts will continue to face an arduous battle.

C. FULL-TIME, POWERFUL, CROSS-FUNCTIONAL TEAM

Reengineering teams should work full-time on the reengineering effort. Hammer and Champy (1993) bluntly stated that:

> Part-time assignments don't work. A minimum commitment is 75 percent of each team member's time... A lessor obligation will make it extremely difficult to get anything done. It also risks stretching the reengineering effort out so long that it loses momentum and dies. In fact, we strongly urge that organizations assign team members 100 percent to the team. Besides making it easier for the team to accomplish what they must, a 100 percent commitment sends a powerful signal to the company that management is serious about reengineering.

Davenport (1993) agrees that full-time teams are a necessity. He stated:

> We have been told by process design team members that it is difficult to
> allocate attention to teamwork unless it comprises at least 50% of their
> jobs. In other words, a team that meets only one day per week is not
> likely to succeed.

Travel reinvention efforts at NSA, AFDW, and the Army's Forces Command
established full-time travel reengineering teams to coordinate the change effort. As
previously stated, NPS attempted to effect major cultural, organizational, and technical
changes relying on a team of relatively low-level employees--without authority to make
any changes--on a part-time basis. The group met on average one day per week for less
than two hours. When occasional tasks were assigned between meetings, the tasks were
usually not accomplished. This indicated that the only time devoted to the team was
during the meetings.

Another tenet of successful reengineering teams is the use of both "insiders and
outsiders" to form the group (Hammer et al., 1993.) For the NPS travel reengineering
team, insiders are people who work inside the travel process. This included personnel
from PSD, Comptroller, SATO, and a departmental travel clerk. Outsiders included
personnel from information systems, students, the Reinvention Coordinator, and a TQL
facilitator.

Students are an excellent source to augment reengineering teams but cannot be
full-time members of the reengineering team. Students could participate in more
reengineering teams if the work matched requirements for required or elective courses.
Student research could also be conducted as directed study course work or in conjunction
with the requirements for a thesis.

The NPS reengineering team represented an appropriate cross-section of the
travel process. However, because team members were working in their "regular" jobs,

the temptation to represent parochial interests was always present. Davenport (1993) stated:

> As long as the members of these design teams are evaluated by their functional managers, their willingness to suggest process designs that weaken or reduce headcount in functions will be compromised.

In particular, personnel representing the Comptroller's office were often unable to commit to any proposed changes without consulting with superiors.

Severing ties with their previous assignments is one way to foster collaboration on team projects. Another way to increase cooperation and systems thinking among team members is to have team members stay with the project through implementation and full rollout of the new process. Hammer and Champy (1993) stated:

> Insiders should not expect to return to their previous jobs when reengineering is over. Rather, they should expect to become part of the new organization that will perform the new process that they are designing. No incentive is quite so effective as the prospect of having to live with the result of one's work.

A strength of insiders on a reengineering team, in addition to their knowledge of the system, is credibility with peers. This credibility is essential in implementing the newly designed process. Although NPS travel team members were selected from the right places, personnel appeared to lack the authority to act independently. Therefore, the NPS team members lacked credibility outside the reengineering team.

Another part of the team development process is the selection of a team leader by the team members. Although the team leader may facilitate the agenda and resolve scheduling conflicts, the primary role of the team leader is to act as a team member, just like everyone else (Hammer et al., 1993). Perhaps because the travel team at NPS met so infrequently, the project coordinator began to make and implement decisions on behalf of the travel team without consulting the team. Sometimes, team members were not even informed of the actions of the project coordinator.

An example of an action taken without informing team members was the decision to purchase travel software without developing an interface to the accounting system. An

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interface is required to allow line managers access to real-time data. Also, an interface is necessary to allow line managers to obligate funds. If line managers cannot obligate funds, the comptroller's office must obligate funds, requiring an additional level of approval. Glenn Bingham (1995), president of Federal Software, stated that without the interface, the system merely automated a way to create paper in the current system.

Understanding the importance of an interface to revolutionizing the travel system leads one to question the rationale behind the decision at NPS. The reason the comptroller's office decided not to develop the accounting interface may be explained by observing the case study of a strategic change initiative of a *Fortune* 500 company (Walker et al., 1995). The study stated:

> At milestone one, the potential loss of control, rather than the technology itself, occupied marketing managers' attention.

NPS's comptroller personnel apparently reacted similar to marketing managers in the case study. That is, they appear concerned with a potential loss of control.

Another tenet of BPR is the need to go for dramatic gains. The approach at NPS (i.e.. unwillingness to interface to the accounting system) is extremely timid. Concessions in design-- from revolution toward evolution-- are more likely as the project spans time without accomplishing dramatic change.

NPS is now experiencing the consequences of ignoring the wisdom gained by leaders of the business process reengineering movement. Minimal time allotted to effecting change resulted in painstakingly slow progress. The effort lost momentum and the reengineering team virtually died. Failure of senior management to charter a full-time reengineering team placed the future of the project in jeopardy.

D. ENVIRONMENT FOR CHANGE

Another principle of reengineering involves an environment for change. The culture in DoD enshrines what Hammer and Champy (1993) call "endless planning, flawless execution." Everyone in DoD understands that failure in war is catastrophic.

This paradigm has carried over into all aspects of DoD. Because reengineering involves invention and discovery, team members must be able to make mistakes and to learn from them (Hammer et al., 1993). Because failure is not allowed, the fear of failure inhibits initiative and restricts change.

NSA credited an environment for change for enabling business process reengineering to succeed (NSA, 1994). The Travel Reengineering Team (TRT) at NSA completed a flowchart of the current travel system with relative ease . Chip Mahan, the project manager for the TRT, emphatically stated that this process was easy because of the Total Quality Management (TQM) infrastructure available at NSA. This infrastructure is also credited with NSA's ability to redesign the travel system without hiring a consultant. Consultants were used to build a Business Process Reengineering model that the TRT used to reengineer the system.

Kathleen Fenton, a change consultant for Washington-based Atlantic Rim Group, stressed the importance of a climate conducive to change (Fenton, 1995). She stated that it is "very easy to influence people who are ready to change." When asked how she assessed the climate for change within the DoD, Ms. Fenton believed that most DoD managers need instruction on change. Specifically, managers need to "get out of the product focus and shift to the process focus."

The Government Accounting Office conducted an extensive review of the travel initiatives within the DoD (Dugan et al., 1995). From the investigation, Ms. Carol Langelier cited several elements that tend to reduce resistance to change including:

- appointing a full time team responsible for the change
- recognizing that change is an ongoing process that keeps evolving
- utilizing a structured approach
- completing a rigorous baseline study of commercial best practices and
- having strong senior level support.

The environment at NPS is not conducive to change. Managers seem engulfed with a fear of failure. The TQL program has not produced the results desired. Even

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designation as a Reinvention Laboratory has not created internal change. The success of the travel reinvention effort, or any change effort at NPS, will continue to be a struggle against the odds until the environment rewards efforts to change regardless of the outcome.

While the NPR has significantly enhanced the climate for change throughout the federal government, some feel that it has not gone far enough. According to one member of the DPR, the focus on implementing change is backwards (Percy, 1995). Colonel Dave Percy feels that the initial emphasis should be to change things in Washington D.C. first. He argues "Instead, we are pushing all the change onto lower echelons, then going on the road to publicize the changes in an attempt to create enough momentum to push the snowball back up the hill."

As an example of things not changing in Washington, Colonel Percy relates the story of President Clinton's request to Congress to cut the number of political appointees in half. Although Congress did not vote to reduce the number, Vice-president Gore suggested that President Clinton simply fill only half of the positions. President Clinton declined to take this politically difficult stance, missing what Colonel Percy believed to be a golden opportunity to set the example for change.

This story points to the distinction between commitment and involvement. This distinction is perhaps best revealed by an old farmer's analogy to the traditional bacon and egg breakfast. While the chicken may be involved in producing the eggs for breakfast, without question, the pig is committed to providing the bacon. When it comes to senior level support to overcoming resistance to change, it helps to have more pigs than chickens.

E. COMMUNICATING THE VISION

The radical change proposed by reengineering is often doomed to failure without the support of at least a critical mass of stakeholders. Recognizing this fact is the first step to overcoming the inevitable resistance to change. Outreach, or communicating with

stakeholders, is essential to establishing a rapport, soliciting ideas, providing information on the change progress, and soliciting feedback that all serve to overcome resistance.

1. Stakeholders

An obvious key to a successful outreach program is to identify stakeholders. In the DoD travel system, stakeholders included other government agencies, DoD management, travel professionals, line managers, travelers, the CTO, and American Express. The large number of stakeholders sheds a glimmer of light on the magnitude of change involved in reengineering travel. This is important because the complexity of reengineering a system grows exponentially according to the number of stakeholders involved with the system (Fenton, 1995).

Other government agencies have varying degrees of interaction with the DoD travel system. These include Congress, GAO, GSA, IRS, NPR, and the State Department. Besides the political interests of other agencies, interaction ranges from budget authority to tax liability to country clearances.

The NSA has effectively conducted outreach with other government agencies. In fact, NSA has received approval for its new travel system from GSA, GAO, and the IRS but is still waiting for approval from DoD. There is some concern at NSA that DoD could end up looking very "bureaucratic" (politically incorrect in the age of reinventing government) by responding slowly.

Management within DoD that is concerned with the travel system includes the office of the Secretary of Defense and DFAS. Each service component has its own travel professionals, line managers, and travelers. To minimize the resistance from all stakeholders, outreach should be stressed early and often.

2. Outreach Styles

The way to communicate with stakeholders is often as important as what is communicated. The perspective of the stakeholder is critically important. Fenton (1995) elaborated on the issue of perspective when trying to overcome resistance. She stated that "You have to realize that everyone is tuned in to WII-FM, which means What's In It For Me. When conducting outreach you should always try to place yourself in the

perspective of the person you are working with. Don't think of how the system benefits you. Instead, focus on how the system will benefit the other person."

Another style for conducting outreach was provided by a member of the DoD Task Force to Reengineer Travel. They stated that the best tool to break down resistance to change is to evoke "ugly" memories. Remind people of travel horror stories to appeal to change. This task force member felt that a "vast record of annoyance" usually meant that everyone had their own personal horror story and, when reminded, would feel the urgency to change.

F. MISCELLANEOUS LESSONS

1. Perpetual Power Struggle

In DoD, power comes from rank, position in an organization, reporting senior, number of personnel assigned, and budget size. Individuals are focused on creating and maintaining their power base. DoD managers will resist changes that threaten their source of power.

Managers in DoD stated that they were concerned that the new travel system would shift costs to the operation and maintenance accounts without a corresponding increase in the budget. Additionally, organizations in DoD are concerned that Congress will reduce the budget prior to attaining the savings projected by the new travel system. Any decrease in the budget leaves a monetary shortfall and erodes an organization's power base.

2. Political Alliances

In the corridors of the Pentagon it seems impossible to separate politics and policy. Any DoD reinvention effort faces certain political resistance. Although politics can be vicious in corporate America, profit is the bottom line. In government service, politics often *is* the bottom line. Certainly, political alliances will be instrumental in overcoming resistance to the new DoD travel system.

G. SUMMARY

The following is a summary of lessons learned:

- Senior management participation is imperative to successfully reengineer a business process.
- Full-time, powerful, cross-functional reengineering teams are vital.
- Technological change is not as difficult as organizational change.
- Establishing a vision for the ideal system is necessary.
- Communicating the ideal vision to key stakeholders is essential.
- Design the process and then use technology to implement the system.

Adhering to these lessons will not guarantee success. However, not using them may ensure failure.

Fenton (1995) stated that reinventing travel was the first large DoD reengineering project. She felt that DoD is using this as a test case for reengineering. If the task force efforts to reengineer travel fail, Ms. Fenton questioned if reengineering in DoD is possible. Considering the current culture of DoD, that is a question that will remain unanswered without additional research.

FASTravel
Concept of
Operations

January 24, 1995

Table of Contents

General Description

FASTravel is a fully automated and paperless travel order and voucher processing system that uses government developed and commercial off-the-shelf software to allow travelers to request and prepare orders and vouchers from their desk top computer. All parts of the process, including creation, transfer, approval, computation, accounting, disbursement, and retention are accomplished electronically. Additionally, FASTravel incorporates the following policy and procedural changes:

One Review and Approval Level: FASTravel electronically routes documents from the traveler to only one review and approval level, instead of manually routing it through several offices. The system's automatic audit modules check accuracy, fund availability, proper accounting classification, etc. replacing the l functions previously accomplshed manually by different offices.

Maximum Use of Government Charge Card: By maximizing travelers' use of government charge and "ATM-in-Pocket" (traveler's checks) for all costs, including airline tickets, lodging, and rental car expenese, FASTravel eliminates the need for cash advances, increaing charge contractor rebates to the government, and eliminating the complex CTO billing and reconciliation process.

Disbursement via Electronic Funds Transfer (EFT): FASTravel automatically computes proper travel payments and initiates EFT disbursements to travelers' bank accounts within minutes, eliminating the expense and inconvenience of processing check payments. FASTravel also "splits" the EFT disbursement, sending appropriate amounts to both the charge card contractor and the traveler. Generally, travelers no longer receive bills from the contractor, instead they receive statements showing amounts charged and amounts paid by the disbursing office. This virtually eliminates charge card delinquency, increasing contractor rebates to the government.

On-Line Transportation and Lodging Reservations: The Contracted Travel Office (CTO) makes all reservations (including transportation, lodging, rental cars, etc.), using data transmitted directly from the traveler's desk top computer.

Functional Responsibilities

FASTravel's operation requires action by individuals in several functional positions and various levels of an installation, including the base level, the finance office, and at the organizational level. The general responsibilities for each functional level are described in the following paragraphs:

Base Level

Communications Unit Commander

Ensures that the software is properly installed and configured on the Local Area Network in order to provide access to all potential users..

FASTravel Systems Monitor

Ensures that all FASTravel system level settings, procedures and background routines for interfacing to the Air Force standard computer systems are functioning properly. In addition, maintains system level security and maintenance for FASTravel hardware and communications.

Finance Office

Financial Services Officer (FSO)/Defense Accounting Officer (DAO)

As FSOs and DAOs are pucniarly liable for funds disbursed by FASTravel, they assigned the broadest the system permission levels. The FSO must select the primary and alternate Installation FASTravel Administrators (from among finance office personnel), certify the Chief of Travel's electronic signature, and along with the Chief of Travel, interpret and implement policy changes distributed from higher headquarters. Only the FSO and the Chief of Travel will have permission to set up the routing for the Installation FASTravel Administrators.

Chief of Travel

Certifies Installation FASTravel Administrator's electronic signature and implements policy changes distributed from higher headquarters. Responsible for day-to-day FASTravel processing within the Finance Office.

Installation FASTravel Administrator (IFA)

This travel official is responsible for the application level maintenance and initial set up of FASTravel system at an installation and has the authority to set permission levels for all of the installation users's. Sets permission levels and certifies electronic signatures for all travel technicians and all Unit FASTravel Administrators. Coordinates any system

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level issues, including upgrades and system bug reports with FASTravel Systems Monitors. Trains travel technicians and Organizational FASTravel Administrators.

Travel Technician

. Conducts post payment audits of statistically appropriate voucher sample, reviews and processes documents, maintains databases, edits tables, controls other system parameters (including rate tables, authorization types, calculation defaults, expense categories, etc.), provides customer support regarding system operations, procedures, entitlements, etc..

Organizational Level

Organizational FASTravel Administrators

Each organization's Administrator updates personnel information, routing and signature profiles for FASTravel users, establishes and edits groups tables, sets permission level for FASTravel users, and edits accounting codes and labels.

Document Preparer

Inputs all required information into system for orders and/or vouchers.

Travelers

Sign their own orders (except group orders) and vouchers, regardless of whether they prepare their documents.

Approving Official

Reviews and verifies the itinerary and expenses of orders and vouchers to ensure that travel actually occurred and claimed expenses are reasonable.

FASTravel Processing

Periodic Automated Data Updates:

FAST programs have been designed to extract data from various existing databases and format this data to interact with a commercial off-the-shelf software application (see Flowchart A - Periodic Automated Updates). FAST extracts the following types of data:

Personnel information (from military and civilian payroll files):
Personnel data (names, addresses, unit of assignment, etc.).
Bank account and routing numbers for electronic funds transfer (EFT).

Accounting/Budget information (from Operating Budget Ledger (OBL) and Master Appropriation Reference Table (MART):
Organizational travel budget allocations by Responsibility Center/Cost Center.
Appropriation information including Fund and Program Summary Records (FSRs and PSRs), valid accounting classifications, etc..

Electronic Signature Certificating Procedures:

During employee inprocessing or introductory training, prior to initial use of the FASTravel system, each employee must establish a unique electronic signature for themselves. This process must be witnessed and certified by an authorized travel technician (certificating official) according to the following procedures:

Electronic Signature Certification:

Personnel office creates list of new users.

Certificating official checks new user's identification card to confirm identity and compares to list.

System prompts new user to enter userid.

User enters "F" followed by Social Security Account Number.

System prompts user to enter a password which must be eight characters long with at least one non-alpha character.

System prompts user to enter password again to validate.

System prompts user to enter an electronic signature code which must also be eight characters long with at least one non-alpha character. This is used to generate the user's public/private key pair.

System prompts user to enter electronic signature code again to validate.

The system prompts the certificating official to enter his/her own electronic signature code thereby generating a certificate for the user's public key.

At the end of each day, a person other than a certificating official obtains a list of the certificates generated and compares it to the list generated by Personnel of individuals who should have obtained certificates.

The certificate database will indicate who verified the individuals authorized to obtain certificate.

Certificate Management:

The certificate record contains a serial number, date, time, user's name and public key, and certificating official's name and electronic signature. These certificates are then stored in a trusted database along with their status i.e., active, revoked, along with the person's electronic signature who placed it in the database.

Any additions, deletions, or modifications to the table of authorized certificating officials are permanently recorded and unalterable.

Document Preparation Approval and Processing:

Documents are created and processed in FASTravel using a commercial software application in conjunction with government developed programs (for Order Preparation and Order Approval - see Flowchart B - Order Preparation and Approval Process, for Voucher Preparation and Voucher Approval - see Flowchart C - Voucher Preparation and Approval Process). The commercial software tracks electronic documents by designating a status at each step in the process. In the following description the status of a document after each step in the process is indicated in **bold** type.

1) **Order Preparation:**

Order Preparer (traveler or administrative personnel) creates order using commercial software (document status = "**Created**").

Order Preparer "SAVES" document.

System prompts for user for electronic signature code.

Order Preparer enters their own signature code (document status = "**Signed**").

The system uses the signature code to generate the signer's electronic signature at the user's work station.

System performs fund availability check.

System electronically routes document to approving official.

2) **Order Approval:**

Approving official notified by email; signs into commercial software.

System displays message, "**Documents waiting review.**"

Approving official "**Reviews**" document after the electronic signature is validated. If requests and itinerary are deemed appropriate, approves the order (document status = "**Approved**").

System prompts approving official for his/her electronic signature code.

Approving official enters electronic signature code.

The system uses the signature code to generate the signer's electronic signature at the user's work station.

Fund availability checked again; funds obligated.

If the approving official deems some aspect of the request unnecessary or inappropriate, he/she may modify and/or make comments and "Return" the order. The document returns to the person who signed it with a notice of the modification, date, time and name of the person who modified the document and saves the original document. The original data and all modifications are stored as a permanent part of the record (document status = "Return"). This allows the creation of the original signed document and the approved signed document for verification if needed.

The system programmatically checks the document with audits controlled by the finance office. If the document passes the audit, it is marked as **Audit Pass**". If the document fails the automatic audit, it is marked as "**Pending**" and is routed to the travel office. The travel office marks the document as "AFO-Pass" or returns it to the traveler.

Commercial software interfaces with FAST programs which format data to update the Air Force accounting system (BQ) through the existing General Accounting Microcomputer Processing System (GAMPS) (document status = "**Datalink**")

3) Voucher Preparation:

Voucher Preparer (traveler or administrative personnel) completes voucher from existing order using commercial software (document status = "**Created**").

Traveler "VIEWS" document to ensure accuracy of claim.

Voucher Preparer "SAVES" document.

System prompts traveler for electronic signature code.

Traveler enters their own signature code (only traveler may sign claim) (document status = "**Signed**").

The system uses the signature code to generate the signer's electronic signature at the user's work station.

If voucher is not signed by the traveler, the document will fail the program audit check.

System electronically routes document to approving official.

4) Voucher Approval:

Approving official notified by email; signs into commercial software.

System displays message, "**Documents waiting review.**"

Approving official "**Reviews**" document after traveler's signature is validated. The approving official does not need to be an expert in travel entitlements because the software automatically computes and audits each claim and ensures that expenses fall within preset thresholds. Approval of the document only attests as to the voracity and reasonableness of the claim. If claim is deemed appropriate, the approving official electronically signs the following statement (document status = "**Approved**"):

*"I have reviewed the itinerary and expenses claimed in this
voucher and have determined that, to the best of my knowledge,
they are appropriate and reasonable."*

System prompts approving official for his/her electronic signature
code.
The system uses the signature code to generate the signer's
electronic signature at the user's work station.

Approving official enters electronic signature code.

If the approving official deems some aspect of the claim as
inappropriate, he/she may make comments and "**Return**" the
voucher to the traveler. (document status = "**Return**").

The system programmatically checks the document with audits
controlled by the finance office. If the document passes the audit,
it is marked as "**Audit Pass**". If the document fails the automatic
audit, it is marked as "**Pending**" and is routed to the travel office.
The travel office marks the document as "**AFO-Pass**" or returns it
to the traveler.

On a regular basis the travel office will "**Datalink**" all
"**Approved**" and "**AFO-Pass**" authorizations and vouchers. This
process interfaces the commercial system to the FAST database,
transmitting all of the data necessary to update the Air Force
accounting system (BQ) through the existing General Accounting
Microcomputer Processing System (GAMPS). (document status =
"**Datalink**").

5) Finance Office Processing:

Finance officials may use the commercial software to process documents
in three ways:

Continuous Process Loop -- Every 30 seconds the program collects and
audits documents that have "**Approved**" status.

Batch Process Loop -- "**Approved**" documents collected in batch mode,
instead of every 30 seconds. Can be run at designated time each day.

Individual Document Process -- Document process one at a time.
Documents which fail any audits must be opened on the screen and
processed by a finance official.

System assigns each document a new status based on results of electronic audit:

Audit Pass -- if the voucher or order passes all audits (document status = "**Audit Pass**").

A document with this status waits for a travel technician to initiate a batch process collection (**DATALINK**) to the FAST database.

Audit Fail -- if the voucher or order fails any audit (document status = "**Pending**").

Pending status will initiate the following:

Document automatically routed to finance office.

Software generates report of all pending documents indicating reason(s) for audit failure.

Travel technician reviews pending documents and decides whether to pass for payment or return to traveler. If the travel technician approves the document he/she selects "**AFO PASSED**" status (differentiating it from the automatic "**Audit Pass**" program stamp). Document remains in commercial software database until travel technician initiates batch process collection (**DATALINK**) to the FAST database.

If the travel technician does not approve the document, he/she stamps the document "**RETURN**" and the document is returned to the traveler.

Automatic return -- if a document fails certain audits it is automatically returned to traveler or document Preparer who must open the document and make the required changes. After the changes are made, the document status must be updated to "**Signed**" once again, to initiate the document routing to the approving official.

"Datalink" (document transfer process to create FAST database transactions):

At a designated time (typically afternoon or early morning) the Installation FASTravel Administrator or designated travel technician turns the Continuous Process off and runs the **DATALINK** option from the commercial software processing menu (see Flowchart D - Datalink Process).

The program searches for all vouchers with status of "**AFO PASS**" or "**AUDIT PASS**" and all orders with "**AUDIT PASS**" status.

Assigns document number and payment date.

Creates the FAST database records for GAMPS processing (updating accounting system) and Integrated Paying and Collecting (IPC) processing(disbursing system).

BQ Interface (updates accounting system):

Travel technician logs into FASTravel processing menus.

The travel technician sees only the menu items that have been previously granted to them by the Installation FASTravel Administrator.

Travel technician enters file information for destination files.

Travel technician enters payment date parameter.

FAST program collects all documents with specified payment date and builds GAMPS data file.

Travel technician signs into BQ and processes the file through GAMPS (this occurs outside of the FASTravel Process).

IPC Interface (triggers disbursement):

Paying and Collecting (finance office) technician enters payment date parameter.

FAST program creates a file (IPC record) of all Check/EFT transactions in the IPC FAST database with the designated payment date.

Accounts Control Section (finance office):

Reconciles each day's accounting transactions (BQ) with the same day's disbursement transactions (IPC).

Prints a hard-copy voucher each "**For Others**" payment (payment made on behalf of another accounting station) and forwards to central clearing house.

Post Payment Audit Procedures

Since the FASTravel system has been designed to reduce the administrative burden and expense of a paper-based process, all documentation needed to support reimbursement of a travel claim is created, routed, approved, signed, and stored electronically. Under this "paperless" system, travelers retain their own receipts for a period of 120 days after their travel claim is settled. These receipts are required to be located at the traveler's official duty station and are turned over to the finance office if the employee separates prior to the 120 day period. If they are selected by the system for a post payment audit, they must provide finance office with receipts. The following post payment audit procedures are designed to detect voucher discrepancies, inappropriate claims and to monitor compliance with travel policies and regulations.

Finance office responsibilities:

Finance officials must conduct regular audits of a statistically appropriate sample of paid vouchers, to assess compliance with travel regulations, policies, and entitlements. When submitting vouchers (claims) for settlement, travelers electronically sign statements, which indicate that they have reviewed, have understood, and are in compliance with relevant travel policies and regulations. Prior to, during, and periodically after implementation of FASTravel procedures, the finance office must instruct travelers on appropriate policies and procedures.

Audit procedures:

A finance official, with appropriate permission levels, indicates the frequency of post payment audits by setting the commercial software's controls to flag every Nth voucher. For instance, they can set the controls to flag every 20th voucher to achieve a five percent selection rate. Any vouchers with amounts that fail threshold tests are also identified for post payment audits.

Within 95 days of the settlement date, the finance office notifies (automatically via e-mail or letter) all travelers with flagged vouchers.

Within seven calendar days of notification, travelers must provide a copy of the default voucher (printed using commercial software) and attach the following:

The receipt checklist (printed using commercial software).

Copies of all receipts listed on the checklist.

A finance office auditor ensures submission of the above documents.

The auditor reviews the documents, by comparing the submitted voucher to the electronically stored voucher. For example, they ensure that the traveler only

claimed lodging room and tax charges for their lodging (not room service, paid cable television, etc.).

If auditor determines that the claim is proper and was paid appropriately they acknowledge this by signing the hard copy default voucher submitted.

The auditor reports any discrepancies to the Chief of the Travel office, who takes appropriate actions to resolve the discrepancy or investigate for potential fraud.

The finance office produces and retains reports summarizing the audit results. GAO's Title 7 requirements for statistical sampling will be followed in adopting the sampling methodology and monitoring the sample results.

All audited vouchers and supporting documentation will be retained in accordance with the current retention requirements.

Sample size:

The finance office uses the above procedures to audit 50 percent of paid vouchers, for a period of at least three months after initial implementation of FASTravel procedures.

Within an organization the finance office must audit 50 percent of paid vouchers to monitor compliance with travels policies and regulations. After this period, if the audit results indicate that travelers are submitting appropriate claims, the post payment audit rate may be reduced to statistically appropriate samples (typically two to five percent).

Electronic Signature Verification

Electronic signatures are verified in the FASTravel Process by verifying public key information with its corresponding private key information.

The public key is generated from a combination of the user's electronic password and several data elements (social security number, today's date, payment amount, etc.), which are then passed through an encryption algorithm (which includes the Progress Encode Routine), which generates a 16-byte public key. This key can be submitted through the algorithm to verify the authenticity of the information that was used to generate the public key, but the information itself cannot be extrapolated from the public key.

Since this electronic signature application is proprietary, for additional information contact Federal Software at 1840 Michael Faraday Drive, Reston, Virginia 22090.

Appendix A - Process Flowcharts

FLOWCHART A - PERIODIC AUTOMATED DATA UPDATE TO
AIR FORCE ACCOUNTING COMPUTER SYSTEMS

2200 mainframe

2200　　**JUMPS**

extract　　obl　　mart　　　　　　　　　vivpa　　milpa

fast
database

TRAVEL ACCOUNTS TABLE　　　　　　　　**TRAVEL PERSONNEL TABLE**

add new accounts
update F/P

load essential
data

TRAVEL F.O. ACCOUNTS

Program validation

mart/
fast
database

manual add
of account

Verification performed
during TRAVEL ORDER ENTRY
(when Audit Check runs)

FLOWCHART B - ORDER PREPARATION AND APPROVAL PROCESS

create/sign
traveler/administrator

DD1610 require information

Return status

view document

routing approval supervisor

document incorrect
Status = Return

routing traveler/ sign

Funding verification can be performed at any of these levels

Program Audit (preset) Continuous

Audit Check

Audit Fail
Status = Pending

Travel document

Audit Pass Status

Datalink

FLOWCHART C - VOUCHER PREPARATION AND APPROVAL PROCESS

create
traveler/administrator

traveler

3551-2 require information

Return status

view document (Traveler)

Prompt signature

routing traveler only

Traveler Signed status

supervisor approval

routing approval

document incorrect (comment) Status = Return

RETURN STATUS

Program Audit (preset) Batch process or Continuous process APPROVED status

Audit Check

Audit Fail

Status Pending

Status AFO PASS

View Document

Travel Technician (view document)

Audit Pass status

print document 1351-2 and/or complete summary

Travel Database record

Datalink Process

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2200 mainframe

extract

obl　　mart

2200　　**JUMPS**

vivpa　　milpa

fast
database

TRAVEL ACCOUNTS TABLE

add new accounts
update F/P

TRAVEL PERSONNEL TABLE

load essential
data

TRAVEL F.O. ACCOUNTS

mart/
fast
database

Program validation

manual add
of account

Verification performed
during TRAVEL ORDER ENTRY
(when Audit Check runs)

DOCUMENT APPROVAL

TRAVEL ORDER ENTRY

create/sign
traveler/administrator

DD1610
require
information

Return status

view
document

routing
certification

document
incorrect
Status = Return

routing
traveler/
sign

Certified
status

Funding
verification
can be
performed
at any
of these
levels

routing
approval
supervisor

document
incorrect
Status = Return

Program
Audit
(preset)
Continuous

Audit
Check

Audit Fail
Status = Pending

Travel document

Audit
Pass
Status

print
document
DD1610

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Fast Database
order records
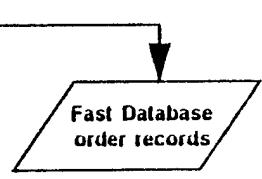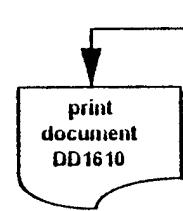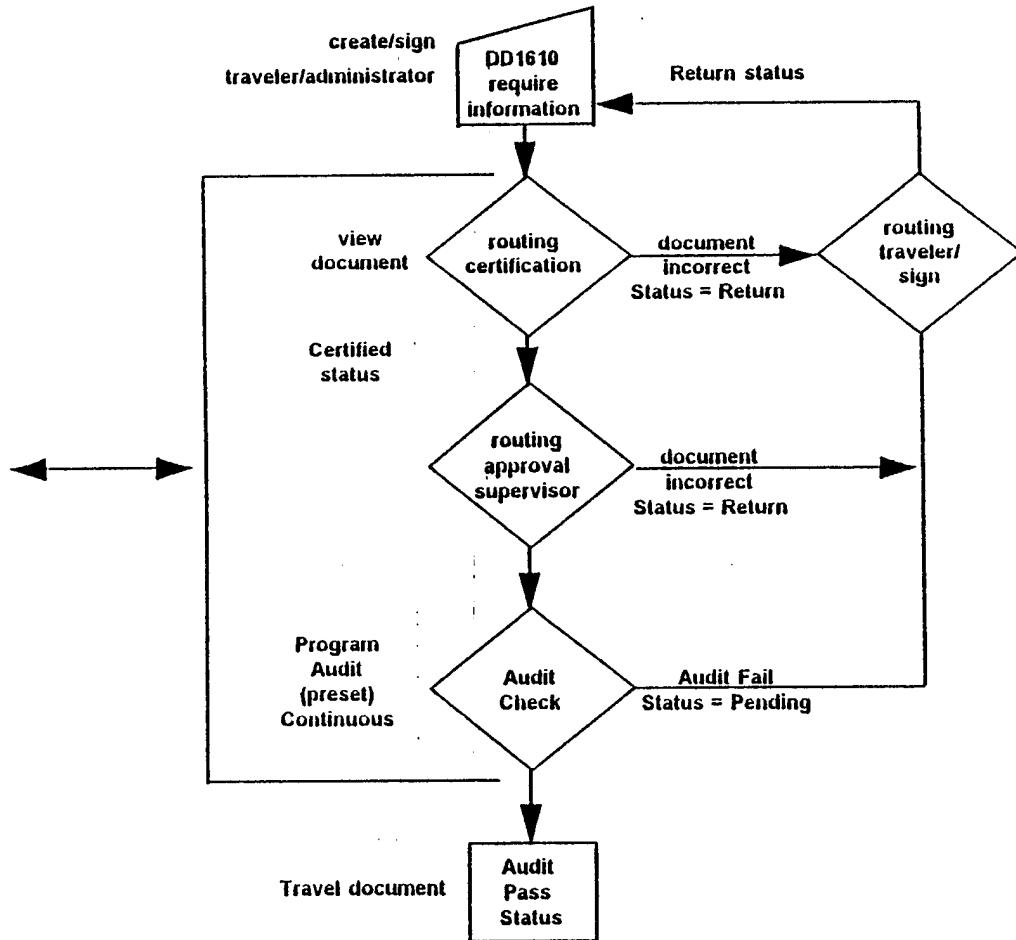
Datalink
Audit Pass
document
Gamps
record
for
Obligation

TRAVEL VOUCHER ENTRY

create traveler/administrator

traveler

3551-2 require information

Return status

view document (Traveler)

Prompt signature

routing traveler only

Traveler Signed status

supervisor approval

routing approval

document incorrect (comment) Status = Return

RETURN STATUS

Program Audit (preset) Batch process or Continuous process APPROVED status

Audit Check

Audit Fail

Status Pending

Status AFO PASS

View Document

Travel Technician (view document)

Audit Pass status

print document 1351-2 and/or complete summary

Travel Database record

Datalink Travel to FAST Travel Office

All Documents with Audit Pass or AFO Pass

FAST Database

Program assigns Voucher Number Payment Date

Fast Database voucher IPC record

Fast Database voucher Gamps record

Orders/Voucher Program assigns Voucher Number Payment Data Gamp Frame

P&C Technician (Utility)

entry pay date

entry pay date

GAMPS Paydate

Travel Account Technician (Utility)

Based on Voucher Paydate

program builds IPC data

program builds Gamps data file

Based on Voucher Paydate and Orders Not Processed

IPC Check

Fed line EFT

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Gamps batch file BQ

Initiated by Travel Account Technician File for B.Q., Maintained on Hard Drive

VERIFY ELECTRONIC SIGNATURE DATA

```
          ┌─────────────────┐
          │     Verify      │
          │ Electronic Signature │
          │      Data       │
          └─────────────────┘
                   │
                   ▼
          ┌─────────────────┐
          │     Pass in     │
          │    Encrypted    │
          │    Signature    │
          └─────────────────┘
                   │
                   ▼
     ┌───────────────────────────┐
     │   Run Through Process     │
     │ NCODE ENCRYPTION CIPHER   │
     └───────────────────────────┘
                   │
                   ▼
Does Not
Match
┌─────────┐              ╱╲
│  Write  │◄────────────╱    ╲
│   to    │           ╱ Match to Key ╲
│ Log File│           ╲            ╱
└─────────┘            ╲    ╱
                        ╲╱
                         │ Matches
                         ▼
                  ┌─────────────┐
                  │   Return    │
                  │ to procedure│
                  │ that called │
                  │   process   │
                  └─────────────┘
```

ELECTRONIC SIGNATURE VALIDATION FAILURE

```
┌─────────────────┐
│   Electronic    │
│   Signature     │
│   Validation    │
│    Failure      │
└─────────────────┘
         │
         ▼
┌─────────────────┐
│     Update      │
│  Failure Log    │
│ for appropriate │
│    process      │
└─────────────────┘
```

APPENDIX B. FASTravel IDEF0

Joint Travel Regulations

Travel Request

Travel Claim

FASTravel System   A0

Travel Manager Plus

Travel Orders

Payment to Traveler

Completed Travel Voucher
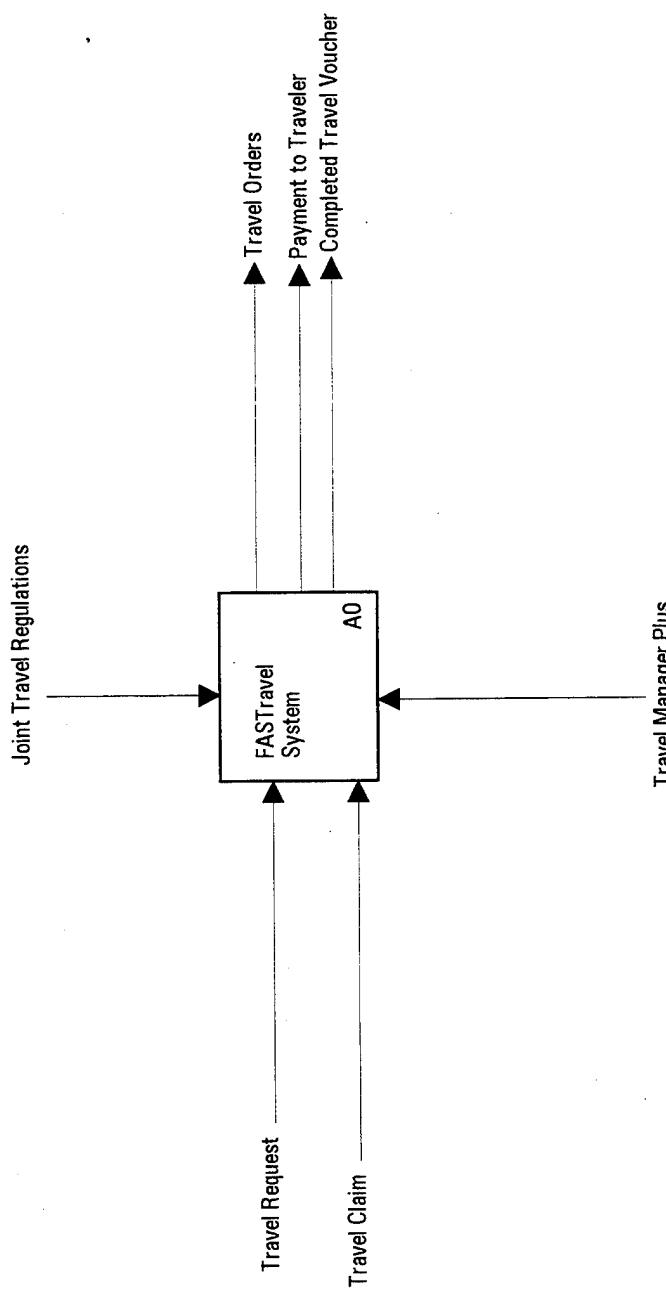
Purpose: Reinvent Travel by using an automated travel system to reduce number of unmatched travel vouchers, outstanding advances, and imporve customer service..

Viewpoint: This project is from the perspective of an oustside Party such as a consultant.

NODE: A-0   TITLE: FASTravel   NUMBER:

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USED AT: | AUTHOR: Stone, Tate, Tharpe | DATE:09/11/94 | READER | DATE | CONTEXT:

PROJECT: FASTravel | REV:

NOTES: 1 2 3 4 5 6 7 8 9 10

| WORKING | DRAFT
| RECOMMENDED
| PUBLICATION

Joint Travel Regulations

C1

I1
Travel Request

Pre-Travel

A1

Process Orders

I2
Travel Claim

Processed Travel
Data

Post-Travel

A2

Process Vouchers

Travel Manager Plus

M1

O1
Travel Orders

92

O3
Completed Travel Voucher

O2
Payment to Traveler

NODE: A0 | TITLE: FASTravel | NUMBER:

PROJECT: FASTravel

REV:

DRAFT
RECOMMENDED
PUBLICATION

NOTES: 1 2 3 4 5 6 7 8 9 10

Joint Travel Regulations

C1

Approved Travel
Request

Approve
Travel
Request

A11

Prepare
Travel
Orders

A12

02

Processed Travel
Data

01

01

Travel Orders

Travel Manager Plus

Process Orders

M1

Manager

I1

Travel Request

93

NODE: A1 | TITLE: FASTravel | NUMBER:

USED AT:

AUTHOR: Stone, Tate, Tharpe
DATE: 09/11/94
REV:

PROJECT: FASTravel

NOTES: 1 2 3 4 5 6 7 8 9 10

	WORKING	READER	DATE	CONTEXT:
	DRAFT			☐
	RECOMMENDED			
	PUBLICATION			

Joint Travel Regulations

C1

I1
Processed Travel Data

I2
Travel Claim

Input Travel Claim
A21

Initial Travel Claim

Approve Travel Expenses
A22

Approved Travel Claim

Process Travel Voucher
A23

O1
Completed Travel Voucher

O2
Payment to Traveler

Travel Manager Plus

Manager

M1

Process Vouchers

Traveler

NODE: A2   TITLE: FASTravel   NUMBER:

PROJECT: FASTravel   REV:

NOTES: 1 2 3 4 5 6 7 8 9 10

DRAFT
RECOMMENDED
PUBLICATION

Joint Travel Regulations

C1

I1

Approved Travel
Claim

Compute
Travel
Voucher

A231

Computed Travel
Voucher

Verify
Computed
Travel
Voucher

A233

Verified
Travel Voucher

Make
Payment

A232

Completed Travel Voucher

01

Payment to Traveler

02

Electronic Funds
Transfer

Disbursing Office

Travel Manager Plus

M1

NODE: A23   TITLE: FASTravel   NUMBER:

Analysis of Department of Defense Travel Management System

at

Naval Postgraduate School Monterey, California

BILL SWAIN

DENNIS TREPANIER

IS-3171

PROFESSOR EMERY

14 SEPTEMBER 1994

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APPENDIX A - IDEFO NPS TRAVEL PROCESS MODEL

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BIBLOGRAPHY

I. Introduction

The purpose of this paper is to identify and document the present TAD travel management process at Naval Postgraduate School Monterey, California, using Integrated System Definition Language (IDEF0). This project will cover the Department of Defense travel order processing system as implemented by the Department of the Navy at the Naval Postgraduate School, Monterey, California, starting from origination to execution of travel orders.

The System Management Department travel clerk was used as a standard for the department section of travel. The department travel clerk, Rose Tuchida, was interviewed and the process flow for the department accounting clerk, provided the imput for the Budget section within the department.

Jo Anna Kallweit, Comptoller Travel Program Administrator, provided the information on the personnel actions and flows within the comptroller department. Chief Ednalaga (PSD) provided an overall view of the DoD travel and the travel procedures at NPS. Petty Officer Covington (PSD) provided a detail view of the Travel section within PSD.

II. Background

Senator William Cohen (R. Maine) said in a statement in April 1994 that the Pentagon is spending $2.3 billion each year processing $2.0 billion of travel orders. The travel office figures were compiled by Vice President Gore's National Performance Review. According to the Armed Service Committee, the Pentagon spends more money processing 11.7 million travel orders than the money spent on travel. The average cost to process the travel orders was cited as approximately $170 each [Ref. 11].

The reason for this project was motivated by the high-cost; labor-intensive, and complex process that is required to process TAD travel orders. By describing the present process thoroughly and accurately, a foundation can be provided for further analysis and process improvements.

IDEF0 (Integrated System Definition Language) is a way of graphically portraying business activities and their relationships [Ref. 2]. It was developed by the U.S. Air Force and is well known in the private and public sectors. Because it is a proven technique of business process modeling, it has been mandated for use by the Department of Defense Corporate Information Management (CIM) Policy Board [Ref. 1].

IDEF0 models are hierarchical, starting with a high-level view of a business process and decomposing each process into increasing layers of detail. By modeling the activity using IDEF0, an important step is taken in discovery and validation of information requirements of the organization. The relationship between the organization and the information it produces is clarified and the implicit rules by which the organization operates are elucidated [Ref. 1].

III. Process Description

The travel system (Node A-0) of the Naval Postgraduate School can best be understood by dividing it into three primary areas of action. The first area is the department, the second area is the comptroller, and the third and final area is Personnel Support Detachment (PSD) (Node A0). See APPENDIX A for the IDEF0 process model for the travel system.

A. Department Processing

The Department travel processing (Node A1) is broken down into three areas of responsibilities. The first area is the travel order processing, the heart of the system. The second area is budgeting and the third area is the approval. The travel process starts with a customer (staff member or student) requesting assistance from the department travel clerk. This begins a somewhat lengthy challenge with many requirements, most not understood by the traveler.

The travel clerk requires the completion of several forms (included as attachments in APPENDIX B):

- ◆ 1) Travel Worksheet (attachment 1) - general information required by the travel clerk to set the process in motion .

◆ 2) Travel Request Form (attachment 2) - required by the comptroller for identifying the source of funds, which includes travel and labor costs [Ref. 14].

◆ 3) Request for Travel Form (attachment 3) - required by PSD for obtaining tickets, lodging, and car rental reservations. The traveler must fill out the forms with his or her proposed itinerary and transportation, lodging, and rental car requests.

◆ 4) Fund Cite Authorization for Civilian Employees (attachment 4) - required for a civilian employee, listing the fund cite authorization [Ref. 8].

◆ 5) Country Clearance Worksheet (attachment 5)- the country clearance worksheet when required for foreign travel [Refs. 6,12].

◆ 6) Authorization to Apply for a No-fee Passport and/or Request for Visa,DD1056 (attachment 6), this obligates the money for the official passport [Ref. 6].

◆ 7) U.S. Department of State Application for Passport, DSP-11 (attachment 7), when required [Ref. 6].

Once the department travel clerk has the traveler's itinerary (Node A11), the clerk begins the process by determining if the trip will require funds (Node A112). If the trip will not require funding (no cost orders), the clerk types the orders and forwards them to the comptroller for signature [Ref. 13]. If funds are required, the next step is to determine if the travel is to be within CONUS or OUTCONUS (Node A113). If travel is to be within CONUS the clerk types the orders and begins to gather the cost estimates [Refs. 4,5,6].

OUTCONUS travel carries the possible additional requirements of a country clearance, passport, and visa [Ref. 6]. This requires the traveler to supply the clerk will a current passport number, or a completed form requesting a passport. The clerk will type this form and insure that a photograph is obtained and attached. The form is then forwarded to PSD for processing (attachments 6,7). Getting a passport generally requires three or more weeks and the earliest this process can be accomplished, the smoother the travel package can be completed.

Additionally, the clerk will begin the process for a country clearance request as required by [Refs. 12,16]. This message request is handled by the Command Travel Message Clerk

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working in the OR department and released by Code 007. The message request is transmitted to the appropriate United States Defense Attaché Office (USDAO) and the a copy of the reply message is later received by PSD [Refs. 3,6,12].

Once this preliminary work is completed, the clerk determines the travel mode and other requirements (Node A114). One requirement is to determine if labor will be paid by another fund cite different from the funding for the travel. If this occurs, the clerk must indicate these funds on the travel orders (Node A1141). A second requirement occurs when the traveler require an airline ticket. The clerk must call Scheduled Airline Ticket Office (SATO), inquire about the amount of the fare, and request that SATO make a reservation. The same action is taken for rental cars. Lodging reservations first require the clerk to ascertain that government lodging is not available before placing commercial reservations (Node A1145). Once estimates are obtained, estimated costs are totaled and the package is forwarded to the Budgeting section [Refs. 8,14].

The budgeting section of the department verifies that the funds, listed by the traveler, are available - that is, that sufficient funds exist in the "checking account" to cover the amount of the travel (Node A12). This would seem to be a somewhat redundant operation, because as responsible adults none of us would "write bad checks". However, during our interview with the department travel clerk, we were assured this occurs. If there are sufficient funds to cover the cost, the accounting clerk reserves the funds and assigns a "tango" number (this term is used to indicate that an obligation will be for Travel/Transport so that the correct appropriated funds are cited. Tango is the phonetic spelling for the letter T, therefore "tango" numbers), to the orders and returns them to the travel clerk [Ref. 8]. The travel clerk types the assigned tango number on the orders and sends them to the first area of approval.

The approval process [Ref. 14] can be viewed as a two tier process (Node A13). The first tier is for standard approval and the second is for special approval. The standard tier is governed by the position of the traveler in the hierarchy of the command (Node A131): the

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higher the traveler is within the chain of command, the higher the required level of approval. The special area of approval is required in three areas (Node A132):

- ◆ 1) if research money will fund the travel, approval must be obtained from the research department;

- ◆ 2) if the total cost of travel is greater than $5000, or travel involves a leave period greater than the TAD period, or for no cost travel orders for civilians greater than 5 work days, approval from the superintendent is required;

- ◆ 3) if travel is to be conducted for medical (out of area doctor appointments) or travel in conjunction with emergency leave, approval must be obtained the Director of Military Operations;

B.   Comptroller Processing

Once the department has completed all the travel request, the travel orders are forwarded to the comptroller department. The comptroller will ensure that the cited funds are being used as the appropriation requires and sufficient funds are available [Ref. 13]. These checks are required to comply with the laws of Congress. If more money is obligated than authorized, the Superintendent can face legal action, which could result in incarceration time [Ref. 8]. Even without this, no commander would want an over-obligation of funds reported on his fitness report. If travel was completed without the availability of funds, the school would be required to transfer funds from other departments to cover the un-funded travel. This action only penalizes the good managers and rewards the poor managers.

On receiving the travel orders, the travel program administrator determines whether the source funding of the travel orders is "no-cost", Operating Target (OPTAR), reimbursable, or fund cite. The administrator forwards "no-cost" orders directly for authenticating signature to the comptroller (Node A2). OPTAR funded orders are verified by an Edit Clerk, first for a correct accounting citation, and then for availability of funds. A fiscal analyst then obligates all funded orders, including OPTAR and reimbursable orders. The travel program administrator

completes a quality check and forwards all orders to the comptroller for an authenticating signature. These actions complete the comptroller process [Ref. 8].

C. PSD Processing

All the previous actions come together within PSD. Most travelers view PSD as the main player for the completion of a speedy travel package.

The travel process within PSD can be broken down into two areas (Node A3). The first area is Disbursing, where all travel orders requesting cash advances are received. The Disbursing Department holds the original orders but forwards a copy to the travel section, permitting that section to begin the travel package processing.

The issuance of travel advances has been greatly curtailed in recent years. Frequent travelers are required to obtain advance cash at ATMs through a Diners Club or American Express Card. This same card is used to pay for lodging and rental cars. The use of this system limits the issue of advances to those who travel less frequently (who may obtain 80% of their estimated meals) and travelers using their Privately Owned Vehicles (POV) (who can obtain 80% of the mileage) (Node A32) [Ref. 14]. Once this amount is determined, checks are cut and held with the original orders for the traveler or department travel clerk for pickup with signature. When the checks are picked up, disbursing releases the original orders. Original orders must be presented to pick up tickets at the travel section of PSD. Checks may not be issued prior to three days in advance of travel [Ref. 14].

In the second area of PSD, travel receives either the original orders or a copy of the orders from Disbursing. The first action is to verify that the time of travel requested matches that of the time required (Node A33) [Refs. 7,9]. This is a required check, since many travelers take leave in conjunction with travel. Leave taken with travel effects the amount of per diem and lodging allowed. At the same time, the PSD travel clerk will determine if PSD or the department has made advance reservations.

PSD will make reservations on two different inputs. The first input is from an advance request form that is filled out by the traveler at the beginning of the process; the second is on

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receipt of original orders. Making reservations in advance of the receipt of the original orders allows PSD to shorten the over all time to complete the travel package and provide better service to the traveler. By the time the orders arrive at PSD, all reservations and travel requirements should be accomplished, leaving only the issuance of the ticket by PSD. The first step in making reservations is to break them into three types, air, lodging, or car rental (Node A332).

For rental cars reservations, PSD must insure that the orders specifically state that a rental car is authorized. PSD, through it own branch of SATO, will make reservations with the rental company that was awarded the government contract for the travelers destination city [Ref. 6]. For lodging reservations, non-availability of government quarters (BEQ/BOQ) must first be obtained, including a non-availability certificate (this can be a number received over the phone), before commercial lodging is obtained [Ref. 6].

Air reservations begin by determining if travel will be CONUS or OUTCONUS (Node A3324). If travel is CONUS, reservations are made through SATO. If OUTCONUS, additional travel requirements must be determined. A country clearance message is required, and is handled by the Command Travel Message Clerk [Refs. 3,12]. If a passport or Visa is required, these must be obtained. A request for government transportation, including Visa/passport numbers, is sent to Naval Passenger Transportation Office (NAVPTO) to ascertain if a government flight is available. If no government flights are available, NAVPTO will forward a control number to PSD, and SATO is permitted to make commercial reservation [Ref. 6].

SATO makes a commercial reservation by checking the availability of government contracted city-pair rates (government contracted city-pairs rates are for travel between two given cities and are awarded to a single, prime carrier) (Node A33246). If no seats are available, SATO then will attempt to obtain a non-contract, government rate. (A non-contract, government rate may exist for other carriers flying this same route that did not receive the award as the single, prime carrier.) Failing that, SATO will made a reservation at a commercial rate.

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At this point all the actions to construct a travel package are completed. If the travel section of PSD holds the original orders, the tickets will be printed. All tickets will be held and are only released once the traveler or department travel clerk sign for the ticket and have the original orders.

IV. Summary

As shown by the IDEF0 description of TAD travel order processing, the tremendous complexity is primarily a function of the large number and variation of entry data at various points along numerous processing paths. Because the process is highly constrained, and complex, it is time consuming and expensive. Information from a large number of sources is also required, and much of it is time critical.

Because some of the same functions can be performed by different parts of the organization for time-critical backup capability, a large amount of communication is often required to prevent duplicate or omitted work. This is especially true in the case of passport processing and advanced reservation processing.

Numerous constraints are imposed by a myriad of instructions, policies, regulations, and contracts with the goal of meeting all requirements while controlling costs and government expenditures. Other constraints are imposed by foreign countries or other departments of the Federal Government, that change frequently and are well outside the control boundaries of the travel order processing system.

Multiple approval/authentication is required due to a desire to maintain control of expenditure for different accounting citations, many of which reside in other branches of the Department of Defense.

Most importantly, the sheer size and number of interfaces make it a challenge to manage the present travel order processing system. This challenge is amplified by frequent changes in requirements and constraints of the independent external entities. For example, a change may be issued by a foreign country which changes country clearance or visa requirements. Also,

changes may be required that alter rules for computing per diem or adding/removing city-pair contracts for a carrier.

Failure to implement some of these changes promptly may result in a traveler being "stranded" while he or she waits to enter a foreign country or causes errors in travel advanced funds.

The present travel order system is labor intensive to compensate for it complexity. Efficient administration of many aspects of the system requires a fair amount of specialized training, familiarity with numerous references, and clearly defined working boundaries. As a results, personnel turnover induces inefficiencies until the job is learned by new employees. Agency costs are also incurred by crisis management and poorly defined work boundaries. Crisis management and last-minute submission of a travel request requires a large amount of "intervention" to force it through the process at faster than a nominal rate (2-4 weeks). Poorly defined work boundaries may result in bickering and squabbling over who does what, and further hinder processing of a travel order. The potential of this seems to be especially apparent between travel personnel at PSD and the Department Travel Clerks where some of the functions are duplicated in an attempt to hasten the processing of a travel order by making advance reservations or passport requests. A clearly written and public description of duties and responsibilities of the departmental personnel involved in travel order processing in the NPS SORM (Standard Organization and Regulation Manual) does not currently exist.

Lower agency and communication costs may be achieved by conducting all the present travel order processing in one central location or travel office. This would pool all information resources (computerized, printouts, messages, publications, and instructions), reduce the redundancies of resources, assist in defining work boundaries, minimize the distance for flow of documentation around campus, and enhance the ability of the present system to respond to changes in requirements or constraints.

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APPENDIX A
IDEFO
NPS TRAVEL PROCESS MODEL

AUTHOR: LCDR Trepanier/LCDR Swain   DATE: 08/30/94

PROJECT: Naval Postgraduate School Travel   REV: 1.0

WORKING	READER	DATE	CONTEXT
DRAFT			Top
RECOMMENDED			
PUBLICATION			

NPS
MONTEREY, CA

NOTES: 1 2 3 4 5 6 7 8 9 10

POLICIES AND PROCEDURES

TRAVEL PACKAGE

Naval
Postgraduate
School
Travel
System   A0

INFORMATION SYSTEMS
-AVAILABLE FUNDS-

PERSONNEL
RESOURCES

TRAVEL REQUEST
(CUSTOMER)

PURPOSE: To Generate, Allocate Funds for, and Authenticate Travel Orders and corresponding
Travel Packages for Naval Postgraduate School Students, Faculty and Staff.

VIEWPOINT: Superintendent, Naval Postgraduate School

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NODE: A-0	TITLE: NPS Travel System CONTEXT LEVEL	NUMBER: 1

USED AT:
NPS
Monterey, CA

AUTHOR: LCDR Trepanier/LCDR Swain   DATE: 09/03/94
PROJECT: Naval Postgraduate School Travel   REV: 1.0

NOTES: 1 2 3 4 5 6 7 8 9 10

WORKING	READER	DATE	CONTE
DRAFT			
RECOMMENDED			
PUBLICATION			

POLICIES AND PROCEDURES

Instructions:
Joint Travel Regs
Navy Travel Regs
Country Clearance

Instructions:
Dept. of Navy
Dept of State
Foreign Travel
NAVCOMP
NPS

Instructions:
NAVPGSCOL 4650.4
NAVCOMP

ADVANCED RESERVATION REQUEST

C1

NO COST TRAVEL ORDERS

PASSPORT PACKAGE

APPROVED TRAVEL ORDERS

AUTHENTICATED TRAVEL ORDERS

I1

TRAVEL REQUEST (CUSTOMER)

DEPARTMENT PROCESSING   A1

COMPTROLLER PROCESSING   A2

PERSONNEL SUPPORT DETACHMENT (PSD)   A3

O1

TRAVEL PACKAGE

PSD Staff

Comptroller Staff

Department Staff

PERSONNEL RESOURCES   M1

INFORMATION SYSTEMS -AVAILABLE FUNDS-   M2

USDAO CLEARANCE APPROVAL

NODE: A0 | TITLE: Naval Postgraduate School Travel System | NUMBER: 2

DEPARTMENT TRAVEL
APPROPRIATIONS

APPROPRIATION LIMITS

Instructions:
Dept. of Navy
Dept of State
Foreign Travel **C1**
NAVCOMP
NPS

NAVCOMPT Instruction
Navy Instructions

Fraud, Waste,
and Abuse
and NPS
Instructions

NAVCOMPT Instruction
Navy Instructions
NAVPGSCOLINST 4650.4
NPS Instructions

FUNDED
TRAVEL
ORDERS

CATEGORIZED
TRAVEL
REQUEST AND
ESTIMATES

O1 ADVANCED RESERVATION REQUEST
O2 PASSPORT PACKAGE
O3 NO COST TRAVEL ORDERS
O4 APPROVED TRAVEL ORDERS

TRAVEL REQUEST
(CUSTOMER)
I1

SATO

NAVCOMPT
PRINTOUT

TRAVEL
ORDER
PROCESSING
A11

BUDGETING
A12

APPROVAL
A13

Department Travel
Clerk

Departmental
Accounting
Clerk

Approving
Authority

Department
Staff
M1

INFORMATION SYSTEMS
-AVAILABLE FUNDS-
M2

111

USED AT: NPS Monterey, CA

AUTHOR: LCDR Trepanier/ LCDR Swain DATE: 09/03/94
PROJECT: Naval Postgraduate School Travel REV: 1.0

NOTES: 1 2 3 4 5 6 7 8 9 10

	WORKING	READER	DATE	CONTEXT
	DRAFT			
	RECOMMENDED			
	PUBLICATION			

NAVCOMPT Instruction
Navy Instructions
NAVPGSCOLINST 4650.4
NPS Instructions

C1

TRAVEL REQUEST (CUSTOMER)
I1

FORMS
Travel Worksheet (Dept)
Travel Request Form (Compt)
Request For Travel (PSD)
NAVPERS 1320/16 (TAD Orders)
Authorization for Passport Appl'n (DD1056)
Application for Passport DSP-11
Country Clearance Worksheet
Fund Site Authorization

COMPLETE TRAVEL REQUEST FORMS
P   A111

COMPLETED TRAVEL REQUEST FORMS

DETERMINE OBLIGATIONS
A112

OBLIGATION REQUIRED

DETERMINE CONUS
A113

UNAPPROVED TRAVEL ORDERS

DETERMINE TRAVEL MODE / COST ESTIMATES
A114

M1 SATO
M2 NAVCOMPT PRINTOUT

M3 Department Travel Clerk

I12
O3 NO COST TRAVEL ORDERS

Q2 PASSPORT PACKAGE

O4 CATEGORIZED TRAVEL REQUEST AND ESTIMATES

O1 ADVANCED RESERVATION REQUEST

NODE: A11   TITLE: TRAVEL ORDER PROCESSING   NUMBER: 4

NAVCOMPT Instruction
Navy Instructions
C1

APPROPRIATION LIMITS
C2

I1
CATEGORIZED
TRAVEL
REQUEST AND
ESTIMATES

113

VERIFY
FUNDS
AVAILABLE
P   A121

VERIFIED
TRAVEL ORDERS

RESERVE FUNDS &
ASSIGN TANGO
NUMBER
P   A122

Expense Log

O1
FUNDED
TRAVEL
ORDERS

M1
Departmental
Accounting
Clerk

M2
INFORMATION SYSTEMS
-AVAILABLE FUNDS-

NODE:	TITLE:	BUDGETING	NUMBER: 5
A12			

AUTHOR: LCDR Trepanier/LCDR Swain   DATE: 09/03/94
PROJECT: Naval Postgraduate School Travel   REV: 1.0

NOTES: 1 2 3 4 5 6 7 8 9 10

WORKING | READER | DATE | CONTE
DRAFT
RECOMMENDED
PUBLICATION

I1
FUNDED
TRAVEL
ORDERS

Fraud, Waste,
and Abuse
and NPS
Instructions
C1

DEPARTMENT TRAVEL
APPROPRIATIONS
C2

STANDARD
APPROVAL
A131

SPECIAL
APPROVAL
REQUIREMENT

SPECIAL
APPROVAL
A132

O1
APPROVED
TRAVEL ORDERS
I14

Departmental
Travel Clerk

Approving
Authority
M1

NODE: A13   TITLE: APPROVAL   NUMBER: 6

AUTHOR: LCDR Trepanier/LCDR Swain   DATE: 09/03/94
PROJECT: Naval Postgraduate School Travel   REV: 1.0

NOTES: 1 2 3 4 5 6 7 8 9 10

WORKING	READER	DATE	CONTE
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RECOMMENDED			
PUBLICATION			

NAVPGSCOLINST 4650.4

I1
FUNDED
TRAVEL
ORDERS

115

DETERMINE
PERSONNEL
CATEGORY
P   A1311

M1
Departmental
Travel Clerk

Students

Faculty/Staff

Department Head/Chair

Mil Ops Dept Head

Deans

Superintendents staff

Civilian Admin Staff

DEPT HD/CHAIRMAN
CURRICULUM OFFICER

DEPT HD/CHAIRMAN

DEAN OF FACULTY

DIR OF MILITARY OPS

PROVOST

EXECUTIVE ASSISTANT

DIR OF RESOURCE

M2
Approving
Authority

O1
APPROVED
TRAVEL ORDERS

O2
SPECIAL
APPROVAL
REQUIREMENT

Special Approval Required:
1. Cost > $5000.
2. Includes Leave Period
   >TAD Period.
3. No Cost > 5 days in
   Pay status.

NODE: A131   TITLE: STANDARD APPROVAL   NUMBER: 7

NAVPGSCOLINST 4650.4

Fraud, Waste,
and Abuse
and NPS
Instructions
C1

Superintent's Approval Required:
1. Cost > $5000.
2. Includes Leave Period
   >TAD Period.
3. No Cost > 5 days in
   Pay status.

I1

SPECIAL
APPROVAL
REQUIREMENT

REIMBURSIBLE
FUNDS

EMERGENCY LEAVE
MEDICAL TRAVEL

Pricipal Investigator

SUPERINTENDENT
NAVAL
POSTGRADUATE
SCHOOL
P   A1321

PRINCIPAL
INVESTIGATOR
APPROVAL
P   A1322

RESEARCH
FUND TRAVEL
APPROVAL
P   A1323

MEDICAL AND
EMERGENCY
LEAVE TRAVRL
APPROVAL
P   A1324

Director Of Research

Director Of Military Personnel

Approving   M1
Authority

O1

APPROVED
TRAVEL ORDERS

116

NODE:	A132	TITLE:	SPECIAL APPROVAL	NUMBER: 8

NAVCOMPT Instruction
Navy Instructions
NAVPGSCOLINST 4650.4
NPS Instructions
C1

O2

OBLIGATION
REQUIRED

O1

NO COST TRAVEL
ORDERS

GENERATE
NO COST
TRAVEL
ORDERS
P   A1122

DETERMINE
OBLIGATION
P   A1121

M1

Department Travel
Clerk

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I1   COMPLETED
TRAVEL REQUEST
FORM

NODE: A112   TITLE: DETERMINE OBLIGATIONS   NUMBER: 9

AUTHOR: LCDR Trepanier/LCDR Swain   DATE: 09/03/94
PROJECT: Naval Postgraduate School Travel   REV: 1.0

NOTES: 1 2 3 4 5 6 7 8 9 10

WORKING	READER	DATE	CONTE
DRAFT			
RECOMMENDED			
PUBLICATION			

NAVCOMPT Instruction
Navy Instructions
NAVPGSCOLINST 4650.4
NPS Instructions
C1

DOD FOREIGN
CLEARANCE GUIDE

INCONUS

OUTCONUS

OBLIGATION
REQUIRED
I1

DETERMINE
CONUS
P   A1131

DETERMINE
FOREIGN
TRAVEL
REQUIREMENTS
P   A1133

GENERATE
TRAVEL
ORDERS
P   A1132

GENERATE
PASSPORT
PACKAGE
P   A1134

PROCESS
COUNTRY
CLEARANCE
P   A1135

GENERATE
U.S.D.A.O.
MESSAGE
P   A1136

PHOTO
SHOP

FORMS
DD-1056
DSP-11

COUNTRY
CLEARANCE
WORKSHEET

Command
Travel
Message
Clerk

M1
Department Travel
Clerk

UNAPPROVED
TRAVEL ORDERS
O2

PASSPORT
PACKAGE
O1

118

Message Request
to U.S.Dept of
Defense Attache
Officer

NODE: A113   TITLE: DETERMINE CONUS   NUMBER: 10

AUTHOR: LCDR Trepanier/LCDR Swain   DATE: 09/03/94
PROJECT: Naval Postgraduate School Travel   REV: 1.0

WORKING	READER	DATE	CONTI
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RECOMMENDED			
PUBLICATION			

NOTES: 1 2 3 4 5 6 7 8 9 10

C1 NAVCOMPT Instruction
Navy Instructions
NAVPGSCOLINST 4650.4
NPS Instructions

I1 UNAPPROVED TRAVEL ORDERS

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DETERMINE TRAVEL MODE & REQUIREMENTS   A1141

DETERMINE POV ALLOWANCE & RESERVATIONS   P   A1142

DETETMINE AIR FARE & & MAKE RESERVATIONS   P   A1143

DETERMINE RENTAL CAR & MAKE RESERVATIONS   P   A1144

DETERMINE PER DIEM ALLOWANCE & MAKE LODGING RESERVATIONS   A1145

TOTAL COST ESTIMATES   P   A1146

Optional Route to PSD
For Reservations

O2 ADVANCED RESERVATION REQUEST

O1 CATEGORIZED TRAVEL REQUEST AND ESTIMATES

M1 Department Travel Clerk

M2 SATO

M3 NAVCOMPT PRINTOUT

NODE: A114   TITLE: DETERMINE TRAVEL MODE / COST ESTIMATES   NUMBER: 11

| NODE: A2	TITLE: COMPTROLLER PROCESSING	NUMBER: 12

AUTHOR: LCDR Trepanier/LCDR Swain   DATE: 09/03/94
PROJECT: Naval Postgraduate School Travel   REV: 1.0

NOTES: 1 2 3 4 5 6 7 8 9 10

READER   DATE   CONTEXT:

| WORKING |
| DRAFT |
| RECOMMENDED |
| PUBLICATION |

NPS
Monterey, CA

Instructions:
Joint Travel Regs
Navy Travel Regs
Country Clearance
C1

I1
ADVANCED RESERVATION
REQUEST

I2
PASSPORT
PACKAGE

I4
USDAO CLEARANCE
APPROVAL

I3
AUTHENTICATED
TRAVEL ORDERS

DETERMINE
TRAVEL
ADVANCE
P   A31

Advance
Requested

PROCESS
ADVANCE
TRAVEL
ALLOWANCE
A32

Disbursing
Clerk

Advance Copy
of Travel Orders

PROCESS
TRAVEL
ORDERS
A33

Original Orders

Travel Advance

Travel
Clerk

M1
PSD Staff

O1
TRAVEL PACKAGE

121

NODE: A3   TITLE: PERSONNEL SUPPORT DETACHMENT (PSD)   NUMBER: 13

Instructions:
Joint Travel Regs
Navy Travel Regs
Country Clearance

C1

DETERMINE ADVANCE CATEGORY P A321

I1

Advance Requested

FREQUENT FLIER - NO ADVANCE

NON-FREQUENT FLIER

PRIVATELY OWNED VEHICLE (POV)

PAY 80% MEALS P A322

PAY 80% MILEAGE P A323

COLLECT ADVANCE PAY CHECK P A324

Check Register

Travel Clerk or Customer

M1

Disbursing Clerk

Advance Copy of Travel Orders   O1

O3

Original Orders   O2

Travel Advance

122

NODE: A32	TITLE: PROCESS ADVANCE TRAVEL ALLOWANCE	NUMBER: 14

MILPERSMAN Chapter 9
NAVPERS 15559 Chapter 8

Instructions:
Joint Travel Regs
Navy Travel Regs
Country Clearance

C1

I3
USDAO CLEARANCE
APPROVAL

I4
Advance Copy
of Travel Orders

VERIFY
AGAINST LEAVE
AND
RESERVATIONS
P   A331

CONFIRM
TRAVEL
ARRANGEMENTS
P   A333

CUT
TICKETS
P   A334

RELEASE
TRAVAL
PACKAGE
P   A335

O1
TRAVEL PACKAGE

ADVANCED
RESERVATIONS
UNCONFIRMED

MAKE
RESERVATIONS
A332

RESERVATIONS
COMPLETED
AND TRAVEL
ORDERS

I1
ADVANCED RESERVATION
REQUEST

I2
PASSPORT
PACKAGE

I6
Original Orders

I5
Travel Advance

123

Travel
Clerk   M1

SATO

NODE: A33   TITLE: PROCESS TRAVEL ORDERS   NUMBER: 15

Instructions:
Joint Travel Regs
Navy Travel Regs
Country Clearance

C1

I1 ADVANCED RESERVATIONS UNCONFIRMED

I2 ADVANCED RESERVATION REQUEST

I3 PASSPORT PACKAGE

DETERMINE TYPE OF RESERFATIONS REQUIRED   P   A3321

BEQ/BOQ AVAILABILITY   P   A3322

COMMERCIAL LODGING RESERVATIONS   P   A3323

AIR RESERVATIONS   A3324

RENTAL CAR RESERVATIONS   P   A3325

Air Reservations

Finalized Air Reservations

124

O1 RESERVATIONS COMPLETED AND TRAVEL ORDERS

M1 Travel Clerk

M2 SATO

NODE: A332   TITLE: MAKE RESERVATIONS   NUMBER: 16

I1 Air Reservations

125

I2 PASSPORT PACKAGE

DETERMINE CONUS   P   A33241

DETERMINE TRAVEL REQUIREMENTS   P   A33242

VERIFY AGAINST GOVERNMENT FLIGHTS   P   A33243

PASSPORT AND VISA PROCESSING VERIFICATION   P   A33244

TRANSMIT COUNTRY CLEARANCE MESSAGE   P   A33245

FINALIZE AIR RESERVATIONS   A33246

O1 Finalized Air Reservations

Message Request to USDAO

CONTROL PERMIT NUMBER

PASSPORT NUMBER

INCONUS

OUTCONUS

M1 SATO

NAVPTO

Code 007

Travel Clerk (PSD)

Passport Agent   Command Travel Message Clerk

NODE: A3324   TITLE: AIR RESERVATIONS   NUMBER: 17

126

I1

INCONUS

I2

CONTROL
PERMIT NUMBER

PROCESS AT
GOVERNMENT
CITY PAIR
CONTRACT RATE
P   A332461

PROCESS AT
NON-CONTRACT
GOVERNMENT
RATE
P   A332462

PROCESS AT
COMMERCIAL
RATE
P   A332463

O1

Finalized
Air Reservations

M1

SATO

NODE: A33246   TITLE: FINALIZE AIR RESERVATIONS   NUMBER: 18

NAVCOMPT Instruction
Navy Instructions
NAVPGSCOLINST 4650.4
NPS Instructions

C1

O1

UNAPPROVED
TRAVEL ORDERS

Charge to
Reimbursible

Charge to Other
than Reimbursible

ASSIGN
LABOR
COSTS
P   A11412

DETERMINE
LABOR
AND
REIMBURSIBLES
P   A11411

M1
Department Travel
Clerk

127

I1   UNAPPROVED
TRAVEL ORDERS

NODE: A1141   TITLE: DETERMINE TRAVEL MODE & REQUIREMENTS   NUMBER:19

AUTHOR: LCDR Trepanier/LCDR Swain   DATE: 09/04/‹

PROJECT: Naval Postgraduate School Travel   REV: 1.0

	WORKING	READER	DATE
	DRAFT		
	RECOMMENDED		
	PUBLICATION		

NOTES: 1 2 3 4 5 6 7 8 9 10

NPS
MONTEREY,CA

NAVCOMPT Instruction
Navy Instructions   NAVSO P-1459
NAVPGSCOLINST 4650.4   NAVMILPERSCOMINST 4650.2
NPS Instructions

C1

NAVSO P-1459

I1

UNAPPROVED
TRAVEL ORDERS

DETERMINE
LODGING
REQUIREMENTS
P   A11451

DETERMINE
GOVERNMENT
LODGING
P   A11452

DETERMINE
COMMERCIAL
LODGING
P   A11453

Non-availability
Certificate
Number

MAKE
RESERVATIONS
P   A11454

O1

UNAPPROVED
TRAVEL ORDERS

128

M1

SATO

M3

Department Travel
Clerk
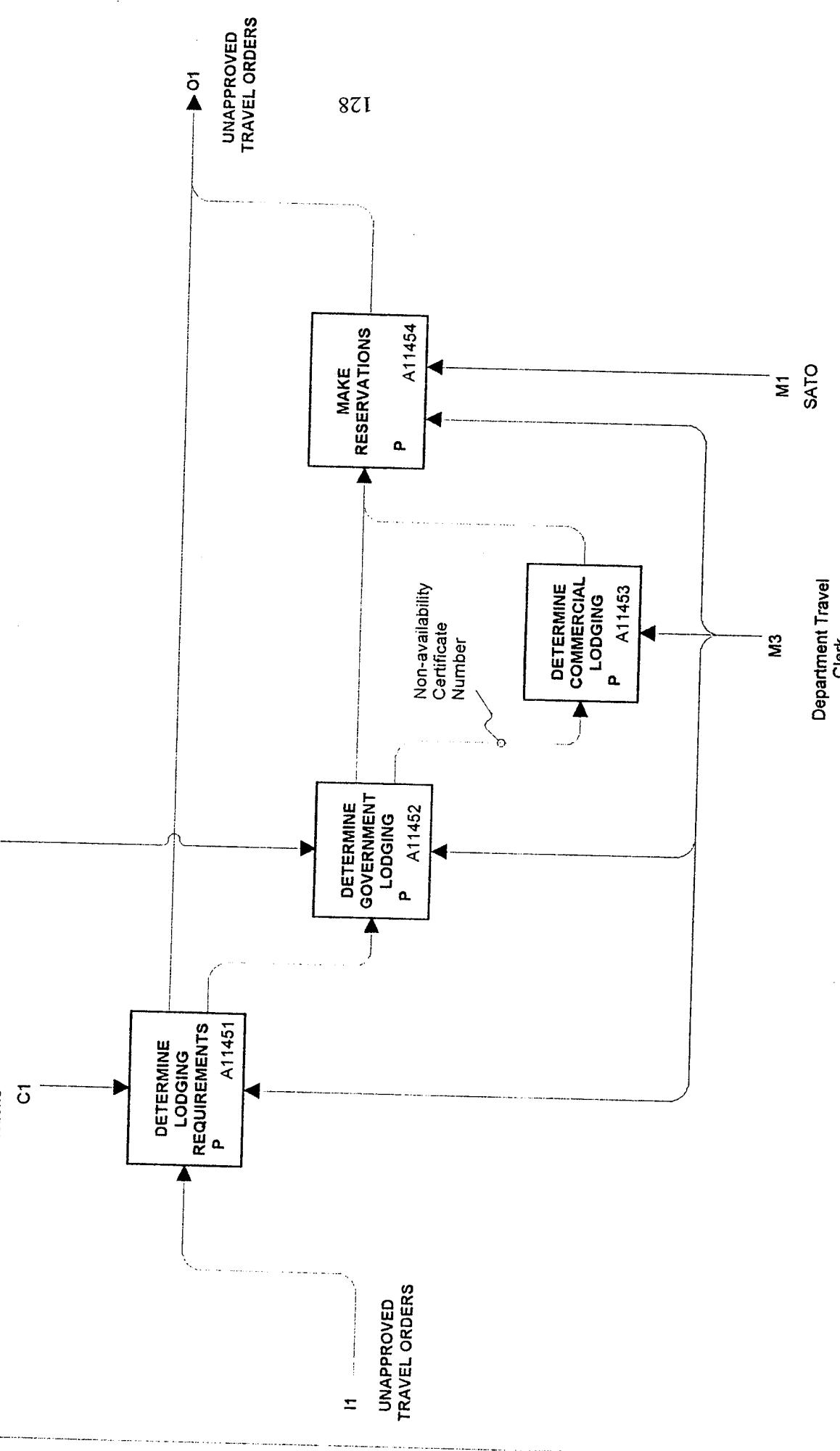
NODE: A1145   TITLE: DETERMINE PER DIEM ALLOWANCE & MAKE LODGING RESE   NUMBER: 20

APPENDIX B
ATTACHMENTS (TRAVEL FORMS)

TRAVEL WORKSHEET

Please note that travel requests should be submitted at least 15 days prior to departure date; 20 days prior if you want an advance. Please submit department or direct funded travel with at least 3 weeks lead time for flag approval.

Name: _____ Ext _____ Date: _____

Dates of Travel: _____

Destination: _____

Type of Orders: Single   Group   Invitational (ITO)   Fund Cite   No Cost

!!! PLEASE DO NOT MAKE RESERVATIONS WITH INDIVIDUAL AIRLINES!!!

FILL OUT ATTACHED PRR FORM

PLEASE MAKE RESERVATION   RESERVATIONS ARE MADE

Airline _____   SATO _____
Rental Car _____   Rental Car _____

**Request authorization for use of TAXI/LIMO/POV in and around TDY area. No authorization needed for transportation to/from airport.

FUNDING: Cost Code/Job Order No. _____

REGISTRATION FEE REQUIRED? Yes/No $_____ (Refer to memo 9 Oct 85)

Date fee required by _____

     1.   Does registration fee include any

         a)   meals   Yes/No   b)   lodging   Yes/No

         If yes,

     a.   Dates _____

         Meals _____
            (e.g., Breakfast, lunch, or dinner)

     b.   Lodging: Fee/day_____ (list each day)

ADVANCE REQUIRED? YES/NO (ISSUED 2 days prior to departure date)

CONFERENCE ATTENDEES:

     1.   ARE YOU PRESENTING A PAPER?   YES/NO

     2.   ARE YOU A PANELIST?   YES/NO

     3.   EXPLANATION:

Utilization of government quarters required, if available, when traveling to another government post/installation, otherwise orders must be stamped to indicate nonavailability. Any special or unusual arrangements should be brought to the attention of the travel clerk BEFORE travel orders are processed.   **POC AT DESTINATION & PHONE NO.**

TRAVEL REQUEST FORM

NAME: _____ SSN: _____
DEPARTMENT: _____ CODE: _____
DATES OF TRAVEL: _____ DATES OF LEAVE: _____
ITINERARY: _____
_____

PURPOSE: _____
_____
_____

* IF NO COST TO GOVERNMENT:
(A) WHO IS FUNDING TRAVEL?
      PERSONAL FUNDS: __
         PRIVATE COMPANY/UNIVERSITY(Name): _____
(B) HOW IS SALARY BEING PAID WHILE ON NO COST ORDERS?
      O&MN:__ AL:__ LWOP: __ OTHER (Explain)_____
      IF O&MN, JUSTIFICATION (Value to U.S. Government): _____
      _____
(C) WILL AN HONORARIUM BE RECEIVED? YES __   NO __
(D) NO. OF DAYS OF NO COST TAD WHILE IN A PAY STATUS: _____

SIGNATURES:

_____ _____ _____ _____
TRAVELER   *(Date)*   *DEPT. HEAD / CURRIC. OFFCR*   *(Date)*

_____ _____ _____ _____
CODE 08 (If Research $3,000 or more) *(Date)*   *P.I. (If Research Funds)*   *(Date)*

_____ _____
LINE MANAGER   *(Date)*

ESTIMATED COSTS:

TRANSPORTATION   REGISTRATION/
Comm'l. Air (GTR)   PER DIEM**   TUITION FEES   TOTAL
$ _____ $_____ $_____ $_____

   ** Breakdown of Per Diem Costs:
      Lodging & Meals: $_____
      Rental Car: $_____
      POV: $_____
      Taxi: $_____
      Rail: $_____
      Other (Specify):_____ $_____

+---+
| **SUPERINTENDENT APPROVAL** (Required when (1) total estimated costs equal or exceed $3,000; (2) total days of delay and leave equals or exceeds the total days of TAD; or (3) when civilian no cost orders exceed five (5) calendar days while in a pay status.) |
| |
| Date: _____ |
| _____ |
| SUPERINTENDENT |
+---+

131   **(SEE REVERSE)**

REQUEST FOR TRAVEL

Please provide the Transportation Office with the following information:

Name of Traveler (Last,First)	Rank/Rate	Activity attached to	Activity to be visited

Reservation requested by _____   Phone _____

FOR OVERSEAS TRAVEL ONLY

SSN: _____   Home phone _____

OFFICIAL PASSPORT NO. WITH EXPIRATION DATE.

RESERVATIONS REQUIRED

Departure Date	Approximate Departure Time	** Must Arrive By	From	To
Return Date				

** Latest time traveler can arrive at destination for TDY purposes. This space may be left blank if exact arrival time is not important.

Seat Preference: ___ Smoking   ___ Non-Smoking   ___ Window   ___ Aisle

Traveler Authorized Rental Car: ___ Yes   ___ No   Size of Car Authorized _____

Navy contract requires use of GSA Contract carriers in accordance with the Federal Travel Directory. Under the terms of the contract the government has guaranteed the airline named in the contract all Federal Travel between your origin and destination. You are advised that having the ticket reissued on another carrier for personal preference or convenience is prohibited. If it is necessary to change airlines as a result of flight cancellations or changes to travel requirements, a statement as to the reason should be included on the travel voucher.

Companies with which MTMC has negotiated special DoD/Government car rental rates will be used to the exclusion of all others. Navy contract requires use of the lowest available rate.

Note: Travelers are not required to select airline or flight number. Travel clerks are required to arrange least costly travel available.

OFFICE CODE/SMC BOX NUMBER _____

PRIVACY ACT STATEMENT: The authority to request this information is contained in 5 USC 552 Department Regulations. This information will be used to assist officials and employees of the Department of the Navy in arranging passenger transportation. Completion of the form is mandatory except for SSN (SSN is mandatory for overseas travel). Failure to provide required information may result in delay in response to or disapproval of your request.

Signature	132	Date

DEPARTMENT OF THE NAVY
NAVAL POSTGRADUATE SCHOOL
MONTEREY, CALIFORNIA 93943-5100

From: Superintendent, Naval Postgraduate School
To:

Subj: FUND CITE AUTHORIZATION FOR CIVILIAN EMPLOYEE

Ref: (a) NAVCOMPT Manual, Vol 3, Para 032106

1. You are hereby authorized to cite the following accounting data for the official travel of:

Name:
Title/Grade:
Phone No:
From/To/Return To:
Date(s) of Travel:
Purpose:

Authorizations:

APPROPRIATION AND SUBHEAD	OBJECT CLASS	BUREAU CONTROL NUMBER	SUB-AUTH	AUTHORIZATION ACCOUNTING ACTIVITY	TYPE	TRAVEL ORDER (Tango)NO.	COST CODE

ESTIMATED COSTS

AA = Per Diem (Incls. Car Rental): $_____
AB = Transportation (GTR Only): $_____
AC = Advance - Advance Authorized: YES____ NO____
AD = Registration Fee: $_____
TOTAL: $_____

21. DATE ISSUED

22. TRAVEL ORDER NUMBER

2. Per reference (a), it is the responsibility of the Commanding Officer (or his designated representative) of the traveler to insure traveler is notified in the travel orders of the requirement to submit a claim to the appropriate command office within 5 calendar days after return to duty and to insure that traveler complies with those instructions. It is requested that one copy of the travel order be forwarded to the Superintendent, ATTN: Code 210T, Naval Postgraduate School, Monterey, CA 93943, prior to date of travel, and that one copy of the paid voucher plus GTR airline itinerary be forwarded immediately upon settlement of claim.

3. Point of contact at the Naval Postgraduate School is

By direction

NAME_____ PHONE_____

1a.

Countries: Country Addresses: (Country Clearance typist to fill in)

_____   _____

_____   _____

_____   _____

_____   _____

Social Security Number(SSN):_____

Full Name:_____

Title:_____

Department:_____

Clearance:_____

Rank: (GS or Equivalent):_____

Passport Number (Official):_____

Passport Date/Place of Issue:_____

Passport Number (Tourist):_____

Passport Date/Place of Issue:_____

Citizenship:_____

Date of Birth:_____

Place of Birth:_____

Resident Alien Number:_____

          Visit: Classified_____ Unclassified_____

1b.

Proposed Itinerary: Day-by-Day Stops to include:
     (1)   mode of transportation
     (2)   departure and arrival dates
     (3)   what you are going to do at each stop
     (4)   point of contact at each stop including title/position,
           organization, address, and phone number

Depart Monterey:_____   _____

_____   _____

Arrive:_____   _____

_____   _____

_____   _____

_____   _____

Depart:_____   _____

_____   _____

_____   _____

Arrive:_____   _____

_____   _____

_____   _____134_____

_____   _____

_____   _____

epart: _____   _____

_____   _____

rrive: _____   _____

_____   _____

_____   _____

epart: _____   _____

_____   _____

rrive Monterey: _____   _____

_____   _____

nnual Leave Taken: (include dates and places)

_____   _____

_____   _____

c.

urpose and Justification for each place visited:

_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____

f this request is being submitted less than 40 days prior to departure,
lease give reason why:_____
_____
_____
_____

Local support required (YES/NO):_____

CHOP:
TRAVELER_____
CHAIRMAN_____
DATE_____

135

(Revised 12/92-07)

THIS FORM MUST BE TYPED   (See DoD 1000.21-R for form completion instructions.)

AUTHORIZATION TO APPLY FOR A "NO-FEE" PASSPORT AND / OR REQUEST FOR VISA	1. DATE PASSPORT OR VISA REQUIRED BY APPLICANT	2. MAJOR SERVICE COMPONENT
3. APPLICANT'S LAST NAME - FIRST NAME - MIDDLE NAME	4. APPLICANT'S DATE OF BIRTH	5. APPLICANT'S PLACE OF BIRTH
6. SPONSOR'S LAST NAME - FIRST NAME - MIDDLE NAME ☐ (If same as Item 3, check block)	7. SPONSOR'S MILITARY RANK/ CIVILIAN GRADE	8. SPONSOR'S SSN
9. APPLICANT'S CURRENT HOME ADDRESS AND ZIP CODE (Include home and office telephone no. and area code)	10. INTERIM ADDRESS WHERE APPLICANT MAY BE CONTACTED AFTER DEPARTING LOCATION INDICATED IN ITEM 9 (Include telephone no. and name of person with whom residing)	

11. DESTINATION (Country or Countries)	12. LIST SPECIAL ASSIGNMENT REQUIRING PASSPORT * (See NOTE below)	13. PASSPORT WILL BE FORWARDED TO: (Include complete mailing address, to include building number, room number, and ZIP Code)	
14. EST DATE OF DEPARTURE (From country in which applicant is currently residing)	15. PROPOSED LENGTH OF STAY	16. SIGNATURE OF AUTHORIZING OFFICIAL AND DATE	
17. ADDITIONAL INFORMATION (Continuation sheet may be added)		18. NAME, GRADE, TITLE AND ORGANIZATION OF AUTHORIZING OFFICIAL (Include complete mailing address, tel. no. and area code)	

*NOTE: If assignment is to Attaché; MAAG; JUSMMAT; Security Assistance Liaison Office (SALO); OSP or other Special Advisory Group, e.g., CENTO; or any particular assignment that will govern type and need for a passport, enter such information. If not, enter "Not Applicable."

DD Form 1056, MAY 92   *Previous edition is obsolete.*   S/N 0102-LF-015-6400   **COPY 1**

ATTACH TO PASSPORT APPLICATION (Form DSP-11)

PRIVACY ACT STATEMENT

AUTHORITY: Sections 3012, 8012, 5031, Title 10 USC; 22 CFR 51.63; EO 9397.

PRINCIPAL PURPOSES: To provide authority for issue of "No-Fee" passport and/or request for a visa which is an endorsement stamped or written on a passport, showing that it has been examined by the proper officials of a country and granting entry into that country. The Social Security Number is required to verify and/or identify the applicant.

ROUTINE USES: Information is used in conjunction with application for passport/visa and foreign travel. Information may be released to other DoD agencies, various activities within the Department of State, foreign embassies and consulates.

DISCLOSURE: Voluntary; however, if applicant does not provide information, a "No-Fee" passport cannot be authorized.

APPLICATION FOR ☐ PASSPORT ☐ REGISTRATION

SEE INSTRUCTIONS—TYPE OR PRINT IN INK IN WHITE AREAS

1. NAME FIRST NAME   MIDDLE NAME

LAST NAME

2. MAILING ADDRESS

STREET

CITY, STATE,
ZIP CODE

COUNTRY   IN CARE OF

☐ 5 Yr. ☐ 10 Yr.   Issue
                    Date _____
R   D   O   DP
End. # _____   Exp. _____

3. SEX   **4. PLACE OF BIRTH** City, State or Province, Country

Male   Female

5. DATE OF BIRTH
Mo.   Day   Year

6. SEE FEDERAL TAX LAW NOTICE ON REVERSE SIDE   SOCIAL SECURITY NUMBER

7. HEIGHT   **8. COLOR OF HAIR**   **9. COLOR OF EYES**   **10. (Area Code) HOME PHONE**   **11. (Area Code) BUSINESS PHONE**

Feet Inches   **12. PERMANENT ADDRESS (Street, City, State, ZIP Code)**   **13. OCCUPATION**

14. FATHER'S NAME   BIRTHPLACE   BIRTH DATE   U.S. CITIZEN ☐ YES ☐ NO

15. MOTHER'S MAIDEN NAME   BIRTHPLACE   BIRTH DATE   U.S. CITIZEN ☐ YES ☐ NO

16. TRAVEL PLANS (Not Mandatory)
COUNTRIES   DEPARTURE DATE

LENGTH OF STAY

17. HAVE YOU EVER BEEN ISSUED A U.S. PASSPORT? YES ☐   NO ☐   IF YES, SUBMIT PASSPORT IF AVAILABLE.   ☐ Submitted

IF UNABLE TO SUBMIT MOST RECENT PASSPORT, STATE ITS DISPOSITION: COMPLETE NEXT LINE
NAME IN WHICH ISSUED   PASSPORT NUMBER   ISSUE DATE (Mo., Day, Yr.)   DISPOSITION

SUBMIT TWO RECENT
IDENTICAL PHOTOS

2" × 2"   FROM 1" TO 1-3/8"

18. HAVE YOU EVER BEEN MARRIED? ☐ YES   ☐ NO   DATE OF MOST RECENT MARRIAGE   Mo.   Day   Year

WIDOWED/DIVORCED? ☐ YES ☐ NO   IF YES, GIVE DATE   Mo.   Day   Year

SPOUSE'S FULL BIRTH NAME   SPOUSE'S BIRTHPLACE

19. IN CASE OF EMERGENCY, NOTIFY (Person Not Traveling With You)   RELATIONSHIP
(Not Mandatory)
FULL NAME

ADDRESS   (Area Code) PHONE NUMBER

20. TO BE COMPLETED BY AN APPLICANT WHO BECAME A CITIZEN THROUGH NATURALIZATION
I IMMIGRATED TO THE U.S.   I RESIDED CONTINUOUSLY IN THE U.S.   DATE NATURALIZED (Mo., Day, Yr.)
(Month, Year)   From (Mo., Yr.)   To (Mo., Yr.)
PLACE

21. DO NOT SIGN APPLICATION UNTIL REQUESTED TO DO SO BY PERSON ADMINISTERING OATH

I have not, since acquiring United States citizenship, performed any of the acts listed under "Acts or Conditions" on the reverse of this application form (unless explanatory statement is attached). I solemnly swear (or affirm) that the statements made on this application are true and the photograph attached is a true likeness of me.

Subscribed and sworn to (affirmed) before me   (SEAL)   X

Month   Day   Year

_____
(Signature of person authorized to accept application)

☐ Clerk of Court or
☐ PASSPORT Agent
☐ Postal Employee
☐ (Vice) Consul USA At _____

_____
(Sign in presence of person authorized to accept application)

22. APPLICANT'S IDENTIFYING DOCUMENTS ☐ PASSPORT ☐ DRIVER'S LICENSE ☐ OTHER (Specify)

ISSUE DATE   EXPIRATION DATE   PLACE OF ISSUE
Month Day Year   Month Day Year

No.
ISSUED IN THE NAME OF

23. FOR ISSUING OFFICE USE ONLY (Applicant's evidence of citizenship)

☐ Birth Cert.   SR   CR   City   Filed/Issued:
☐ Passport   Bearer's Name:
☐ Report of Birth
☐ Naturalization/Citizenship Cert.   No.:   137
☐ Other:
☐ Seen & Returned
☐ Attached

APPLICATION APPROVAL

_____
Examiner Name

_____
Office, Date

24.

FEE _____ EXEC. _____ POST _____

PASSPORT APPLICATION

FEDERAL TAX LAW:

Section 6039E of the Internal Revenue Code of 1986 requires a passport applicant to provide his/her name (#1), mailing address (#2), date of birth (#5), and social security number (#6). If you have not been issued a social security number, enter zeroes in box #6. Passport Services will provide this information to the Internal Revenue Service routinely. Any applicant who fails to provide the required information is subject to a $500 penalty enforced by the IRS. All questions on this matter should be referred to the nearest IRS office.

ACTS OR CONDITIONS

(If any of the below-mentioned acts or conditions has been performed by or applies to the applicant, the portion which applies should be lined out, and a supplementary explanatory statement under oath (or affirmation) by the applicant should be attached and made a part of this application.)

I have not, since acquiring United States citizenship, been naturalized as a citizen of a foreign state; taken an oath or made an affirmation or other formal declaration of allegiance to a foreign state; entered or served in the armed forces of a foreign state; accepted or performed the duties of any office, post, or employment under the government of a foreign state or political subdivision thereof; made a formal renunciation of nationality either in the United States or before a diplomatic or consular officer of the United States in a foreign state; or been convicted by a court or court martial of competent jurisdiction of committing any act of treason against, or attempting by force to overthrow, or bearing arms against, the United States, or conspiring to overthrow, put down, or to destroy by force, the Government of the United States; or having been naturalized, within one year after such naturalization, returned to the country of my birth or any other foreign country to take up a permanent residence.

WARNING: False statements made knowingly and willfully in passport applications or in affidavits or other supporting documents submitted therewith are punishable by fine and/or imprisonment under provisions of 18 USC 1001 and/or 18 USC 1542. Alteration or mutilation of a passport issued pursuant to this application is punishable by fine and/or imprisonment under the provisions of 18 USC 1543. The use of a passport in violation of the restrictions contained therein or of the passport regulations is punishable by fine and/or imprisonment under 18 USC 1544. All statements and documents submitted are subject to verification.

PRIVACY ACT STATEMENT:

The information solicited on this form is authorized by, but not limited to, those statutes codified in Titles 8, 18, and 22, United States Code, and all predecessor statutes whether or not codified, and all regulations issued pursuant to Executive Order 11295 of August 5, 1966. The primary purpose for soliciting the information is to establish citizenship, identity, and entitlement to issuance of a United States Passport or related facility, and to properly administer and enforce the laws pertaining thereto.

The information is made available as a routine use on a need-to-know basis to personnel of the Department of State and other government agencies having statutory or other lawful authority to maintain such information in the performance of their official duties; pursuant to a court order; and, as set forth in Part 171, Title 22, Code of Federal Regulations (see *Federal Register,* Volume 42, pages 49791 through 49795).

Failure to provide the information requested on this form may result in the denial of a United States Passport, related document, or service to the individual seeking such passport, document, or service.

HOW TO APPLY FOR A U.S. PASSPORT. U.S. passports are issued only to U.S. citizens or nationals. Each person must obtain his or her own passport.

IF YOU ARE A FIRST-TIME APPLICANT, please complete and submit this application in person. (Applicants under 13 years of age usually need not appear in person unless requested. A parent or guardian may execute the application on the child's behalf.) Each application must be accompanied by (1) PROOF OF U.S. CITIZENSHIP, (2) PROOF OF IDENTITY, (3) TWO PHOTOGRAPHS, (4) FEES (as explained below) to one of the following acceptance agents: a clerk of any Federal or State court of record or a judge or clerk of any probate court accepting applications; a designated postal employee at a selected post office; or an agent at a Passport Agency in Boston, Chicago, Honolulu, Houston, Los Angeles, Miami, New Orleans, New York, Philadelphia, San Francisco, Seattle, Stamford, or Washington, D.C.; or a U.S. consular official.

IF YOU HAVE HAD A PREVIOUS PASSPORT, inquire about eligibility to use Form DSP-82 (mail-in application).

Address requests for passport amendment, extension of validity, or additional visa pages to a Passport Agency or a U.S. Consulate or Embassy abroad. Check visa requirements with consular officials of countries to be visited well in advance of your departure.

(1) PROOF OF U.S. CITIZENSHIP.

(a) APPLICANTS BORN IN THE UNITED STATES. Submit previous U.S. passport or **certified** birth certificate. A birth certificate must include your given name and surname, date and place of birth, date the birth record was filed, and seal or other certification of the official custodian of such records. A record filed more than 1 year after the birth is acceptable if it is supported by evidence described in the next paragraph.

IF NO BIRTH RECORD EXISTS, submit registrar's notice to that effect. Also submit an early baptismal or circumcision certificate, hospital birth record, early census, school, or family Bible records, newspaper or insurance files, or notarized affidavits of persons having knowledge of your birth (preferably with at least one record listed above). Evidence should include your given name and surname, date and place of birth, and seal or other certification of office (if customary) and signature of issuing official.

(b) APPLICANTS BORN OUTSIDE THE UNITED STATES. Submit previous U.S. passport or Certificate of Naturalization, or Certificate of Citizenship, or a Report of Birth Abroad, or evidence described below.

IF YOU CLAIM CITIZENSHIP THROUGH NATURALIZATION OF PARENT(S), submit the Certificate(s) of Naturalization of your parent(s), your foreign birth certificate, and proof of your admission to the United States for permanent residence.

IF YOU CLAIM CITIZENSHIP THROUGH BIRTH ABROAD TO U.S. CITIZEN PARENT(S), submit a Consular Report of Birth (Form FS-240) or Certification of Birth (Form DS-1350 or FS-545), or your foreign birth certificate, parents' marriage certificate, proof of citizenship of your parent(s), and affidavit of U.S. citizen parent(s) showing all periods and places of residence/physical presence in the United States and abroad before your birth.

(2) PROOF OF IDENTITY. If you are not personally known to the acceptance agent, you must establish your identity to the agent's satisfaction. You may submit items such as the following containing your signature AND physical description or photograph that is a good likeness of you: previous U.S. passport; Certificate of Naturalization or of Citizenship; driver's license (not temporary or learner's license); or government (Federal, State, municipal) identification card or pass. Temporary or altered documents are not acceptable.

IF YOU CANNOT PROVE YOUR IDENTITY as stated above, you must appear with an IDENTIFYING WITNESS who is a U.S. citizen or permanent resident alien who has known you for at least 2 years. Your witness must prove his or her identity and complete and sign an Affidavit of Identifying Witness (Form DSP-71) before the acceptance agent. You must also submit some identification of your own.

(3) TWO PHOTOGRAPHS. Submit two identical photographs of you alone, sufficiently recent to be a good likeness (normally taken within the last 6 months), 2 × 2 inches in size, with an image size from bottom of chin to top of head (including hair) of between 1 and 1-3/8 inches. Photographs must be clear, front view, full face, taken in normal street attire without a hat or dark glasses, and printed on thin paper with a plain light (white or off-white) background. They may be black and white or color. They must be capable of withstanding a mounting temperature of 225° Fahrenheit (107° Celsius). Photographs retouched so that your appearance is changed are unacceptable. Snapshots, most vending machine prints, and magazine or full-length photographs are unacceptable.

(4) FEES. Submit $42 if you are 18 years of age or older. The passport fee is $35. In addition, a fee of $7 is charged for the execution of the application. Your passport will be valid for 10 years from the date of issue except where limited by the Secretary of State to a shorter period. Submit $27 if you are under 18 years of age. The passport fee is $20 and the execution fee is $7. Your passport will be valid for 5 years from the date of issue, except where limited as above.

- Pay the passport and execution fees in one of the following forms: checks—personal, certified, traveler's; bank draft or cashier's check; money order, U.S. Postal, international, currency exchange; or if abroad, the foreign currency equivalent, or a check drawn on a U.S. bank.

Make passport and execution fees payable to Passport Services (except if applying at a State court, pay execution fee as the State court requires) or the appropriate Embassy or Consulate, if abroad. No fee is charged to applicants with U.S. Government or military authorization for no-fee passports (except State courts may collect the execution fee). Pay special postage if applicable.

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APPENDIX D. TRAVEL PROCESS PAY SCALE

Rate/ Rank	Basic Pay	Additional Benefits	BAQ/VHA	Basic Allowance for Subsistence	Total Pay
E-3	$1,064	$319	$424	$230	$2,037
E-4	$1,240	$372	$438	$230	$2,280
E-5	$1,458	$437	$714	$230	$2,839
E-6	$1,659	$498	$824	$230	$3,210
E-7	$1,923	$577	$924	$230	$3,654
E-8	$2,268	$680	$924	$230	$4,102
E-9	$2,671	$801	$1,017	$230	$4,719
O-2	$2,410	$723	$662	$142	$3,937
O-3	$3,024	$907	$935	$142	$5,008
O-4	$3,533	$1,060	$1,137	$142	$5,872
O-5	$4,445	$1,333	$1,258	$142	$7,179
O-6	$5,537	$1,661	$1,258	$142	$8,599

Rate/ Rank	Annual Pay Step 5	Additional Benefits	Monthly Pay
GS-1	$13,904	$4,171	$1,506
GS-2	$15,137	$4,541	$1,640
GS-3	$17,062	$5,119	$1,848
GS-4	$19,151	$5,745	$2,075
GS-5	$21,426	$6,428	$2,321
GS-6	$23,883	$7,165	$2,587
GS-7	$26,541	$7,962	$2,875
GS-8	$29,396	$8,819	$3,185
GS-9	$32,466	$9,740	$3,517
GS-10	$35,755	$10,727	$3,873
GS-11	$39,285	$11,786	$4,256
GS-12	$47,081	$14,124	$5,100
GS-13	$55,986	$16,796	$6,065
GS-14	$66,162	$19,849	$7,168

APPENDIX E. WAGE ANALYSIS FOR TRAVEL PROCESS

Wage(Avg)={Wage(Lowest) + 4*Wage(Most Likely) + Wage(Highest))/6

Naval Postgraduate School:

Personnel Associated With Travel Process	Highest Rate/Rank	Most Likely Rate/Rank	Lowest Rate/Rank	Wage(Avg) Per Minute
Traveler	O-5	O-3	O-2	$0.54
Curriculum Officer/Representative	O-3	O-3	O-5	$0.56
Dept. Travel Representative	GS-4	GS-5	GS-6	$0.24
Dept. Chairman/Representative	GS-15	GS-15	GS-15	$0.88
Comptroller Travel Section	GS-5	GS-7	GS-9	$0.30
Comptroller OPTAR/ Reimbursable	GS-5	GS-5	GS-7	$0.25
SATO Office	GS-5	GS-5	GS-6	$0.25
Travel Representative	E-4	E-5	E-6	$0.29
PSD Claims Representative	GS-5	GS-6	GS-8	$0.28
PSD Check Writer	GS-4	GS-5	GS-8	$0.25
Mail Clerk	GS-4	GS-5	GS-6	$0.24
Dept. Claims Representative	GS-4	GS-5	GS-6	$0.24

Defense Language Institute:

Air Force Traveler	E-4	E-6	O-5	$0.39
Army Traveler	E-4	E-6	O-5	$0.39
Air Force Pre-Travel	E-4	E-5	E-9	$0.32
Air Force Post-Travel	E-4	E-5	E-6	$0.29
Army Pre-Travel	E-5	E-5	O-3	$0.33
Army Post-Travel	E-3	E-5	E-7	$0.30
SATO Office	GS-5	GS-5	GS-6	$0.25
Travel Representative	GS-4	GS-5	GS-6	$0.24

Air Force District of Washington:

Air Force Traveler	O-3	O-3	O-6	$0.58
Resource Advisor	GS-9	GS-10	GS-12	$0.42
Approval Authority	O-4	O-5	O-6	$0.24
Secretarial Labor	GS-4	GS-6	GS-11	$0.75
Financial Management Labor	E-4	E-5	E-7	$0.29
Account Finance Office	GS-4	GS-6	GS-9	$0.27

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APPENDIX F. NAVAL POSTGRADUATE SCHOOL ESTIMATED PRE-TRAVEL LABOR COSTS

Process	Time (MIN)	Cost	Elapsed Time (Workdays)
Traveler Initiates Process With Curriculum Office:	5	$2.70	1
Curriculum Office Provides Required Information:	3	$1.68	1
Traveler Picks Up and Completes Required Forms:			1
Request:	19	$10.27	1
Justification:	15	$8.11	1
Traveler Goes to Department Travel Representative (DTR):	10	$2.42	1
DTR Reviews Forms:	3	$0.73	2
Traveler Returns to DTR:	5	$2.70	2
DTR Gives Traveler Reviewed and Computed Travel Forms:	1	$0.24	2
Traveler Takes Forms to Curriculum Office for Signature:	5	$2.70	2
Curriculum Office Signs Travel Forms:	3	$1.68	2
Traveler Returns to DTR:	5	$2.70	2
DTR Faxes Preliminary Copy to SATO:	5	$1.21	3
SATO Makes Reservations from Preliminary Copy of Travel Request:	10	$2.46	3
DTR Types Orders:	5	$1.21	3
DTR Takes Orders to Department Head for Signature:	5	$1.21	3
Department Heads Signs Orders:	3	$2.63	4
DTR Picks up Signed Orders:	5	$1.21	4
DTR Makes Copies:	30	$7.26	4
DTR Takes Orders to Comptrollers Travel Office:	15	$3.63	5
Comptrollers gives to Reimbursable or OPTAR for Review:	5	$1.51	6
Reimbursable or OPTAR Reviews Orders:	5	$1.26	6
Reimbursable or OPTAR Returns Orders to Travel Office:	2	$0.50	7
Comptroller Travel Office Reviews Orders:	5	$1.51	7
Comptroller takes Orders to SATO:	10	$3.01	8
SATO Prints tickets after Receiving Orders:	5	$1.23	8
DTR Picks Up Tickets:	15	$3.63	9
Traveler Returns to DTR to Pickup Tickets/Orders:	5	$2.70	10
DTR Gives Traveler Tickets/Orders:	2	$0.48	10
Totals:	206	$72.62	10

Average Cost Per Minute:	$0.35

Average Cost Per Hour: $21.15

APPENDIX G. NAVAL POSTGRADUATE SCHOOL POST-TRAVEL ESTIMATED LABOR COSTS

Process	Time (Min)	Cost	Elapsed Time (Workdays)
Traveler Goes to Department Travel Representative (DTR):	5	$2.70	1
DTR Gives Traveler Travel Claim Worksheet:	3	$0.73	1
Traveler Completes Travel Claim and Attaches Receipts:	15	$8.11	1
Traveler Returns Completed form to DTR:	5	$2.70	1
DTR Takes Claim to Department Claims Representative (DCR):	5	$1.21	2
Travel Worksheet is Typed by DCR:	6	$1.45	3
Traveler Goes to DCR and Signs Travel Claim:	5	$2.70	4
DCR Takes Signed Claim to Comptroller:	15	$3.63	4
Comptroller Reviews Claim and Prepares Transmittal Form:	10	$3.01	5
Comptroller Delivers Claim and Transmittal Forms to PSD:	10	$3.01	6
Personal Support Department Claims Representative (PSDCR):			
Reviews Claim:	5	$1.38	7
Enters Claim into Computer:	5	$1.38	7
Audits Claim:	5	$1.38	7
PSDCR Hands Completed Claim to Check Writer:	2	$0.55	8
Check Writer Prepares Payment for Traveler:	15	$3.79	8
Check Writer Transfers Payments to Mail Clerk:	5	$1.26	8
Mail Clerk Processes Mail:	10	$2.42	9
Traveler Picks up Travel Reimbursement:	5	$2.70	9
Traveler Deposits/Cashes Check at Bank:	15	$8.11	9
Totals:	146	$52.23	9
Average Cost Per Minute:	$0.36		
Average Cost Per Hour:	$21.47		

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APPENDIX H. DEFENSE LANGUAGE INSTITUTE AIR FORCE ESTIMATED LABOR COSTS

Pre-Travel Process	Time (Min)	Cost	Elapsed Time (Workdays)
Personnel Office Gets Report On Individual and Reviews:	5	$1.59	1
Traveler goes to Personnel Office for Assignment Brief:	10	$3.87	2
Give Traveler Assignment Brief:	20	$6.37	2
Give Traveler Paperwork to Complete:	5	$1.59	2
Traveler Completes Paperwork:	20	$7.74	2
Traveler Returns Paperwork to Personnel Office:	10	$3.87	3
Personnel Office Types Orders:	20	$6.37	3
First Review by E-6:	10	$3.34	3
Second Review by E-7:	5	$1.90	4
Third Review by E-9:	3	$1.47	4
Corrections and Copies Made by Personnel Department:	20	$6.37	4
Traveler Returns to Personnel Office to Pickup Orders:	10	$3.87	5
Personnel Office Gives Traveler Orders:	5	$1.59	5
Traveler goes to Travel Representative:	5	$1.94	5
Travel Representative takes Orders and Makes Reservations:	10	$2.42	5
SATO Prints Tickets:	5	$1.23	6
Traveler Returns to Travel Office to Pickup Tickets:	10	$3.87	6
Travel Office Issues Tickets:	5	$1.21	6
Total:	178	$60.65	6
Cost Per Minute:	$0.34		
Cost Per Hour:	$20.44		

Post-Travel Process	Time (Min)	Cost	Elapsed Time (Workdays)
Traveler Picks Up Travel Voucher:	5	$1.94	1
Traveler Completes Travel Voucher:	15	$5.81	1
Traveler Takes Voucher to Air Force Finance:	5	$1.94	1
Air Force Finance Takes Voucher:	2	$0.58	1
Review Travel Voucher:	5	$1.46	1
Compute Payment:	5	$1.46	1
Audit Travel Voucher:	5	$1.46	1
Pay Travel Voucher:	5	$1.46	1
Traveler Waiting Time:	20	$7.74	1
Total:	67	$23.86	1
Average Cost Per Minute:	$0.36		
Average Cost Per Hour:	$21.36		

APPENDIX I. DEFENSE LANGUAGE INSTITUTE ARMY ESTIMATED LABOR COSTS

Pre-Travel Process	Time (Min)	Cost	Elapsed Time (Workdays)
Travelers Orders Typed at Company Level:	15	$5.81	1
Orders Taken to S-3:	10	$3.87	1
S-3 Checks Requirements for Travel:	35	$11.67	2
S-3 Review the Orders:	10	$3.33	2
S-3 Checks the Budget:	10	$3.33	3
S-3 Computes the Travel:	20	$6.67	3
S-3 Takes Orders to Resource Management:	10	$3.33	3
Resource Management Reviews Orders:	5	$1.48	4
Resource Management Returns Order to Company for Traveler:	15	$4.44	5
Total:	130	$43.94	5
Cost Per Minute:	$0.34		
Cost Per Hour:	$20.28		

Post-Travel Process	Time (Min)	Cost	Elapsed Time (Workdays)
Traveler Picks Up Travel Voucher:	5	$1.94	1
Traveler Completes Travel voucher:	15	$5.81	1
Traveler Has Company Commander/ Representative Sign:	5	$1.94	1
Traveler Takes Voucher to Finance:	10	$3.87	2
Finance Takes Voucher:	2	$0.59	2
Review Voucher:	5	$1.48	2
Compute Voucher:	5	$1.48	2
Pay Voucher:	5	$1.48	2
Finance Takes Voucher to Resource Management:	5	$1.48	2
Resource Management Audits, Reviews and Stores Vouchers:	15	$4.44	3
Total:	72	$24.50	3
Average Cost Per Minute:	$0.34		
Average Cost Per Hour:	$20.42		

APPENDIX J. AIR FORCE DISTRICT OF WASHINGTON ESTIMATED LABOR COSTS

Pre-Travel Process	Time (Min)	Cost	Elapsed Time (Workdays)
Traveler Identifies Travel Requirements:	5	$1.94	1
Traveler goes to Admin:	5	$1.94	1
Admin is Informed of Pending Travel and Types Orders:	20	$5.79	1
Admin Transfers Typed Orders to Resource Advisor:	5	$1.45	2
Resource Advisor Determines Fund Availability:	5	$2.09	2
Traveler Picks up Orders and Delivers to Approval Authority:	20	$8.37	3
Approval Authority Signs Orders:	10	$7.50	3
Approval Authority Transfers Orders to Budget Office:	5	$1.45	4
Budget Office Initials Orders:	3	$0.90	4
Budget Office Transfers Orders to Account Finance Office (AFO):	10	$3.00	5
AFO Certifies and Authenticates Orders:	20	$5.42	5
AFO Transfers Authenticated Orders to Transportation:	5	$1.35	6
Transportation Reservations are Made:	10	$2.42	6
SATO Prints Tickets:	5	$1.23	6
Traveler Picks up Advance, Tickets, and Orders:	35	$20.44	7
Total:	163	$65.29	7
Average Cost Per Minute:	$0.40		
Average Cost Per Hour:	$24.03		

Post-Travel Process	Time (Min)	Cost	Elapsed Time (Workdays)
Traveler Picks up Travel Voucher:	5	$2.92	1
Traveler Completes Voucher and Attaches Supporting Documents:	20	$11.68	1
Traveler Takes Voucher to Account Finance Office (AFO):	35	$20.44	1
AFO Collects and Sorts Vouchers:	10	$2.71	2
AFO Researches Claim:	5	$1.35	2
AFO Computes Claim:	10	$2.71	2
AFO Audits Claim:	5	$1.35	3
AFO Inputs Claim into Computer:	5	$1.35	3
AFO Sorts, Files & Distributes Copies:	15	$4.06	3
AFO Completes Paying and Collecting Logs:	10	$2.71	4
AFO Downloads Payment Data:	5	$1.35	4
AFO Completes Audit and Releases Payment:	5	$1.35	5
Payment Made to Traveler:	5	$1.35	5
Total:	135	$55.37	5
Cost Per Minute:	$0.41		
Cost Per Hour:	$24.61		

APPENDIX K. ESTIMATED LABOR COSTS FOR FASTravel

Pre-Travel Process	Time (Min)	NPS (Cost)	DLI (Cost) Air Force	DLI (Cost) Army	Air Force Washington Cost
Traveler Inputs:					
Reason for Travel					
Dates and Times of Travel					
Transportation Requirements					
Lodging Requirements					
E-Mail to Approving Authority					
Total for Traveler Inputs:	10	$5.41	$3.87	$3.87	$5.84
Approving Authority Reviews:					
Travel Instructions					
Funding Codes					
Funds Available					
Total Time for Approval:	12	$10.54	$3.82	$4.00	$9.00
ATM Advance as Required:	5	$2.70	$1.94	$1.94	$2.92
Total:	27	$18.65	$9.63	$9.81	$17.76
Average Cost Per Minute:		$0.69	$0.36	$0.36	$0.66
Average Cost Per Hour:		$41.44	$21.40	$21.80	$39.46

Post-Travel Process	Time (Min)	NPS (Cost)	DLI (Cost) Air Force	DLI (Cost) Army	Air Force Washington Cost
Travel Inputs Data:					
Social Security Number					
Receipt Amounts					
Lodging Costs					
Transportation Costs					
Misc Expendatures					
E-Mail to Approving Authority					
Total for Traveler Inputs:	15	$8.11	$5.81	$5.81	$8.76
Approving Authority Reviews:					
Expenses					
E-Mails to Disbursing Office					
Total Time for Approval:	5	$4.39	$1.59	$1.67	$3.75
Disbursing Office:					
Reviews					
Makes Payment to Traveler					
Total Time for Disbursing:	10	$2.52	$2.92	$2.96	$2.71
Total:	30	$15.03	$10.33	$10.43	$15.22
Average Cost Per Minute:		$0.50	$0.34	$0.35	$0.51

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